THE MIDDLE MATTERS: POLITICAL RESPONSES TO INCOME INEQUALITY IN AN AMERICAN STATE

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This dissertation examines the effects of micro-level inequality on political preferences and voting behavior.

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CHAPTER 1

INTRODUCTION

1.1 Income Inequality and Political Participation

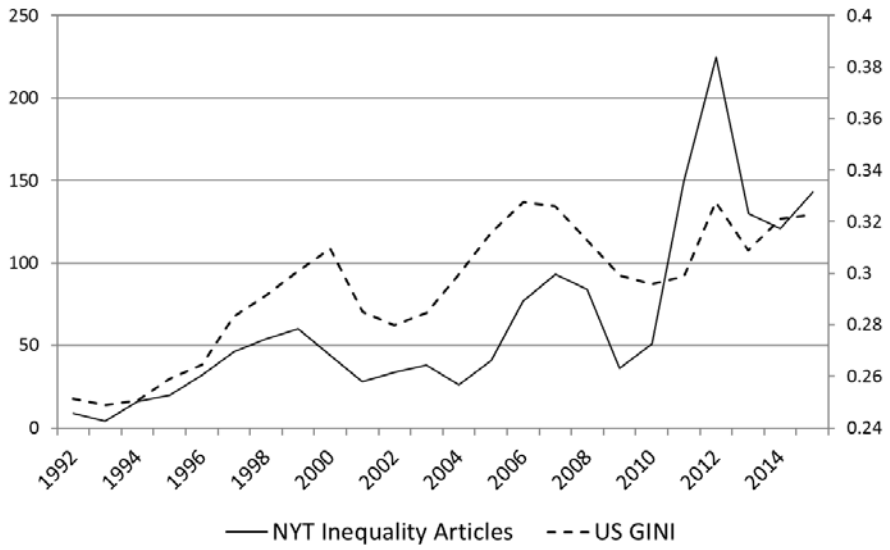
On a cold day in September of 2011, in response to the growing corporate influence in democracy and fears that government was becoming less representative, a group of concerned citizens gathered in New York's Zuccotti Park to protest decades of rising income inequality in America. Thus was born the "Occupy Wall Street" movement, which spurred a global movement against rapidly increasing income inequality worldwide, and served as a focusing event for concerns that inequality had grown too large in America. In 2012, income inequality reached its highest point since 1928, right before the Great Depression.

For the last forty years, the United States has experienced dramatic increases in income inequality, or the income difference between the haves and the have-nots. America's top ten percent now average more than nine times as much income as the bottom ninety percent of income earners. This is up from just three times as much in the early 1970s. The incomes of the top one percent of income earners accounts for twenty-four percent of all incomes earned in America, up from just nine percent forty years ago. The rate of income increase for the top ten percent of income earners is almost eight times larger than that of those earning median incomes. The nation's lowest-wage workers have actually seen decreases in their real, inflated adjusted wages. Between 1977 and 2017, income of the top one percent of U.S. earners increased by over 265 percent. Over the same period, the bottom ninety percent of earners have seen their average income increase by 21 percent. The Gini coefficient, an often-used measure of

income inequality, has increased from a low of .314 in 1967 to .406 in 2017, an increase of almost 30%.

Income inequality has increasingly entered the public discourse. The lasting effects of the Great Recession, the Occupy Wall Street movement, and the presidential campaign of Bernie Sanders, have all increased the salience of this issue. The majority of Americans see the gap between the rich and the poor increasing and want something to be done about it. Recent studies by McCall (2013) indicate that 66 percent of Americans believe that the gap between the rich and the poor is too wide, 56 percent of Americans believe that inequality continues to benefit the rich at the expense of the poor, and 52 percent of Americans believe that these differences in incomes are unnecessary for American prosperity. Additionally, 69 percent of Americans believe that the government should do something to reduce this gap, while 54 percent specifically favor taxing the wealthy to expand aid to the poor (Pew 2014).

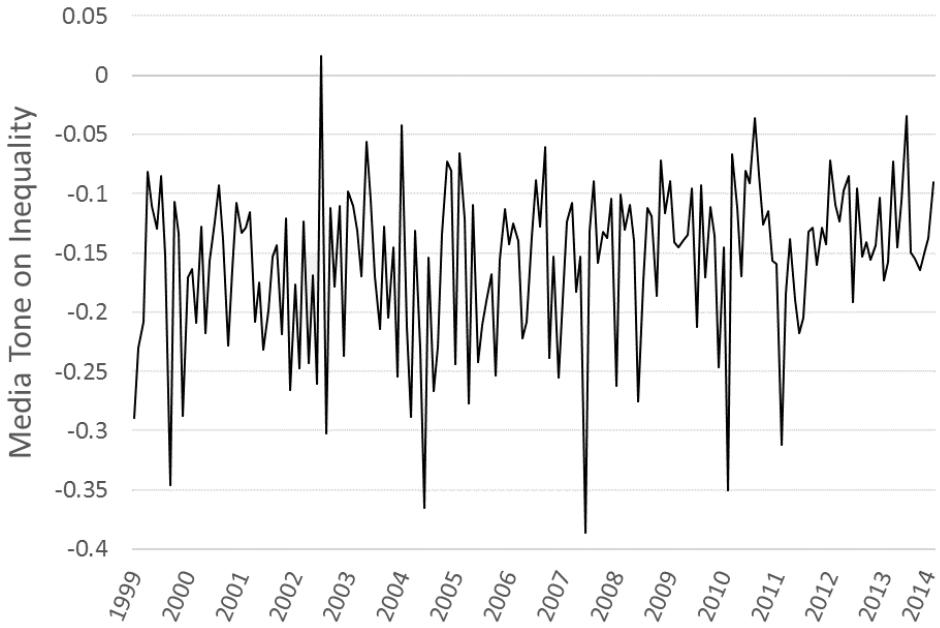
Figure 1.1. Rising Income Inquality and Media Attention[1]



[1] Source: New York Times (LexisNexis Archives), Inequality data from Frank (2014)

Media attention to the issue of income inequality has also risen in the United States over the last 20 years. Figure 1.1 shows the number of New York Times articles on the issue of income inequality for the years 1992 to 2015 as well as the corresponding Gini coefficient of income inequality (Frank 2014). Figure 1.1 demonstrates two trends, which appear to be correlated; the increase, although unsteady, of income inequality over this period, as well as the increasing attention that the news media has given to this issue. Whether the news media is responding to actual changes in inequality or the public's increasing concern on this issue is hard to determine, but they are related. The increase in media attention to income inequality produced by the 2012 Occupy Wall Street movement is also apparent in Figure 1.1. Since 1992, inequality has been increasing, and both media and public attention to this issue has increased.

Figure 1.2. Monthly Media Tone on the Issue of Income Inequality[2] (New York Times and Washington Post)



[2] Source: Data collected for Eshbaugh-Soha and McGauvran (2018)

The media have not portrayed a positive tone towards this issue. The majority of news sources, including conservative sources, have portrayed this issue in a negative light (Eshbaugh-Soha and McGauvran 2018). Figure 1.2 is a monthly aggregation of the number of positive and negative sentiments about income inequality from the New York Times and Washington Post for years 1999-2013, with negative numbers indicating that a larger proportion of mentions were negative. It is apparent that the vast majority of coverage of income inequality is negative. In fact, for only one month over this period was the aggregate tone on inequality coverage positive. This month corresponds to a dramatic drop in inequality in 2002, which can be seen in Figure 1.1, and the coverage of the issue quickly returned to framing it in negative terms. These trends correspond to the findings of McCall (2013) and Pew Research (2014) that show that the public is becoming increasingly aware of inequality, and the majority of people consider this increase a bad thing.

Previous economic theories indicate that as income inequality increases, a larger proportion of the population should desire redistributive benefits (Meltzer and Richard 1980). Therefore, increasing income inequality should increase levels of political participation as people compete for the resources and particularized benefits of government. Political participation should become more attractive as a means to improve their circumstances. In response to this, and because of the expected costs of redistributive programs, the well-off should mobilize to counteract the increased participation of the poor. E.E. Schattschneider argues that minority parties are motivated to extend benefits to new groups of individuals to increase the size of their coalitions (1960). Therefore, in an attempt to increase their constituency, the minority

party should work to mobilize the poor, thus increasing participation. However, the effects of rising inequality has been the exact opposite, inequality has worked to diminish participation. Income inequality produces an income bias in the electorate and citizens in the highest income quintile are much more likely to vote (Brady 2004; Solt 2010).

If rising income inequality has produced a class bias in political participation (Solt 2008) and has widened the preference gap between the rich and the poor for social welfare and redistributive policies (Enns and Wlezien 2011), then the idea of equal representation may be in danger. One of the tenements of American democracy is "one person one vote" and that each citizen should be considered equally when representatives make policy. "A key characteristic of democracy is the continuing responsiveness of the government to the preferences of its citizens, considered as political equals" (Dahl 1973, p.1).

The threat to American democracy posed by increasing income inequality depends on systematic differences in participation and preferences, which lead to a system that is more responsive to a subset of the American electorate. If decision makers have become more responsive to members of certain economic classes, while neglecting others, it may present a real problem for American democracy. The following research will address the link between income inequality and political preferences and participation.

1.2 The Importance of California for Studying Income Inequality

Single state analysis is often met with questions regarding the external validity of

any findings produced. There is some evidence however, that focusing on California, a state with considerable diversity, may produce meaningful findings. Although California is not fully representative of the entire nation, the state is optimal for studying the effects of race and class since the differences that do exist indicate trends that are expected for the nation in the future (Hajnal 2007). California has a long history with direct democracy, and the voters in this state rely more heavily on ballot propositions to decide state policy than in most states (Initiative and Referendum Institute 2002). A heavy reliance on direct democracy means that voters in the state of California are likely to be better informed due to the prominence of major campaigns focusing on the initiative process (Gerber 1999).

Demographically, California looks like what researchers predict the rest of the nation will look like in the near future (Reyes et al. 2001; Census Bureau 2001). Anglos have become a slight minority in the population, and the Latino population has grown larger than the African American population. These trends indicate that the racial context in California has become more diverse, which is also occurring across the nation. California, particularly, has transcended the simple Anglo-African American dichotomy, which has influenced the majority of racial and ethnic politics literature since V.O. Key (1966), due to its increasing Latino population. Additionally, the African American population in California is very similar to what is found in the rest of the nation in terms of age, urban residence, and family structure (Hajnal 2007). The only exception is that the African American middle-class is larger and more established than in other states (Reyes et al. 2001; Smelser et al. 2001), but this is also a trend expected elsewhere. Finally, California has a larger Asian population, approximately 15 percent,

than any other state besides Hawaii. However, Asian born immigration has recently exceeded that of Latin born immigration nationally (Pew 2017), making the trend seen in California expected elsewhere.

Economically, California is a very diverse state. According to the Bureau of Labor Statistics, California has regions that rely heavily on sectors that are prominent around the country, such as agriculture, extractive resources and mining, tourism, computer and tech industries, manufacturing, service sector jobs, and many others. From the mining and timber rich north to the agricultural heavy central valley, the tech heavy Silicon Valley, the entertainment and service industry rich south, to mining and oil extraction in the east, and everything in between. For these reasons, California serves as a good proxy for the economic makeup of many regions around the country. All of these characteristics make California an important test case, and though it may not be fully externally applicable to the rest of the nation at present, it accounts for trends that are expected elsewhere in the near future.

1.3 Overview of the Dissertation

In Chapter 2 of this dissertation," From Sweaty Hands to Greased Palms: Income Inequality and the Distribution of Economic Policy Preferences" I analyze how differing levels of income inequality has effected preferences for liberal economic policies. Recent class and inequality research has indicated that rising inequality has increased the public's negative opinions on inequality, yet has relatively unchanged their preferences for redistribution (McCarty et al. 2006; McCall 2013). Other researchers have shown that rising income inequality produces a divergence in the preferences of

the haves and the have-nots, especially for economic policies (Kelly and Enns 2010; Soroka and Wlezien 2008; Ura and Ellis 2008; Moene and Wallerstein 2001). However, researchers have yet to show if this finding extends beyond public opinion, or if rising income inequality can influence policy outcomes. Using new voting data from California, I show that increasing inequality can affect support for liberal economic policies, but that this effect is contingent on resources. Finally, I show that income inequality produces an economic cleavage that extends beyond public opinion to vote choice, which can influence policy outcomes.

Utilizing community based voting and inequality data from 1992 to 2012, and spatial regression modeling to account for the spatial components of inequality and preference, I show that there is an interactive relationship between levels of income inequality, median group incomes, and support for redistributive policies. As median income increases, the effect that rising inequality has on support for liberal economic policies increases. Additionally, I show that initial increases in the levels of income inequality cause preferences to become bi-modally distributed, indicating that greater political conflict and mobilization should occur. The results indicate that as the disparity between the rich and the poor increases, opposing policy preferences become more equitably distributed. The voting decisions of individuals are affected, and these changes can have meaningful impact on policy, especially where direct democracy is possible.

In Chapter 3 of this dissertation," A Competition Theory of the Effects of Income Inequality on Political Participation", I analyze the effect of higher levels of inequality on participation rates. In this chapter, I explore three previous models of the effect that

increasing inequality should have on participation rates and suggest a new model that better explains how inequality affects participation. Previous research on the relationship between income inequality and political participation finds that societies with the greatest income equality often have the highest levels of participation, while the most unequal populations often have the lowest levels of participation. While these studies specify the relationship between inequality and participation as linear, there are reasons to believe that changes in inequality affect rates of political participation contingent on both the size of the change as well as the current levels of inequality. This chapter theorizes that the relationship between income inequality and participation is curvilinear, with increases at lower levels of inequality increasing participation and increases at higher levels decreasing participation.

To test these theoretical claims I use community level voting data in California from 1992 to 2012 and account for the spatial components of participation and income, this chapter provides evidence that the effects of income inequality on participation depend on the current levels of, and size of change in, income inequality. This paper finds that increases in income inequality actually increase participation in economically homogeneous populations, likely due to increases in political conflict and mobilization, while increases in income inequality in economically heterogeneous populations decrease participation, because of the decreasing competitiveness and relative power differences inherent to highly unequal populations. This finding suggests that previous research, which treats this relationship as linear, may be misinterpreting the effect of increasing income inequality on political participation, especially for more economically homogeneous populations.

In Chapter 4 of this dissertation," From the Poorhouse to the Voting Booth: The Effect of Income Inequality and Race or Ethnicity on Voting", I analyze how higher levels of inequality affect the participation rates of different racial/ethnic groups. I draw upon recent research on the effects of in-group connections to show that minority groups respond to higher levels of inequality differently that Anglos. Recent research has shown that increasing income inequality in America has led to decreasing levels of political participation in the form of voting. Additionally, reduced levels of voting have occurred unevenly by class, with the largest decreases coming from the poor and middle class. However, these studies have treated all Americans the same while not accounting for the possibility of different responses to increasing income inequality from different racial and ethnic groups. I theorize that increasing inequality will produce a divergence in political preferences, producing greater conflict over the appropriate course of policy. When this happens, minority populations will have a greater incentive to work towards the betterment of the group due to their stronger in-group attachments, which produce higher levels of participation than Anglos.

To test these theoretical claims I examine neighborhood voting rates and levels of income inequality from 1992 to 2012 and utilize spatial regression modeling. This paper develops a theoretical framework to show that different racial/ethnic groups respond to changing levels of income inequality differently. While both the Anglo poor and wealthy Anglo neighborhoods become increasingly disenfranchised, African American and Latina/o neighborhoods respond with an increase in participation. As inequality increases, wealthy minority neighborhoods show rates of participation well above that of wealthy Anglo neighborhoods. Even poor minority neighborhoods respond

to higher levels of income inequality with increased participation, even though they never reach the level of participation seen in poor Anglo neighborhoods. This finding emphasizes the importance of the interaction between race/ethnicity, class, and income inequality and suggests that the lack of social capital within the poor Anglo community is driving the lower levels of voter turnout identified in previous research.

Finally, chapter 5 concludes the dissertation. In this chapter, I summarize my findings, discuss the scholarly and practical implications of my research, and discuss future research projects stemming from each essay.

CHAPTER 2

FROM SWEATY HANDS TO GREASED PALMS; ECONOMIC INEQUALITY AND THE DISTRIBUTION OF ECONOMIC POLICY PREFERENCES

2.1 Chapter Abstract

Recent research on class and inequality has attempted to determine if rising income inequality produces a divergence in the preferences of the haves and the have-nots, especially for economic policies. Researchers have yet to show if this finding extends beyond public opinion, or if rising income inequality can affect policy outcomes. Using new voting data from California, I show that increasing inequality produces an economic cleavage that extends to vote choice, which can affect policy outcomes. Utilizing community based voting and inequality data from 1992 to 2012, and spatial regression modeling to account for the spatial components of inequality and preference, I show that inequality affects the distribution of policy preferences on ballot initiatives dealing with economic policies. The results indicate that as the disparity between the rich and the poor increases, opposing policy preferences become more equitably distributed, which could lead to greater levels of policy competition. The voting decisions of individuals are affected, and these changes can have meaningful impact on policy, especially where direct democracy is possible.

2.2 Introduction

Since the early 1970s, the American economic environment has been defined by an almost steady increase in inequality. The American Political Science Association's (APSA) taskforce on inequality and American democracy concluded that rising

economic inequality may be posing a severe threat to our form of representative democracy by affecting policy preference formation (Jacobs et al. 2004). Yet little is known about how the rising levels of economic inequality have affected policy preferences for the mass public. Researchers addressing this relationship have been unable to reach a consensus. Some have concluded that rising economic inequality is strengthening class-bias in preferences, where the rich and poor diverge in their preferences for social welfare policies (Edsall 1984; Gilens 2005; Avery 2015). Other researchers have concluded that the rich and the poor have not diverged in their policy preferences, where individuals at all levels of economic stratification follow a similar pattern in their preferences over time (Bartels 2005; Soroka and Wlezien 2008; Ura and Ellis 2008; Kelly and Enns 2010). However, if increasing inequality is systematically affecting social policy preference distributions in the American mass public, then, as the APSA taskforce feared, inequality could potentially threaten American democracy by representing the preferences of a single class.

While previous literature has examined the effects of rising inequality on preferences for redistributive policies (Bartels 2008; McCall 2013), this research has only examined how inequality has affected level of support, ignoring the effects that income inequality has on the distribution of preferences within the electorate. At higher levels of inequality, the haves become fewer, with more individual resources, while the have-nots become greater, with less individual resources, and this produces an income bias in preferences. This research differs slightly from previous models by focusing on the compositional change in individuals at different economic positions in the electorate. By focusing on the difference in the distribution of preferences, this research shows that

as populations become more economically unequal, the distribution of preferences become less heavily skewed towards either support or opposition, becoming more bimodally distributed, potentially leading to higher levels of political competition.

In section three, this paper addresses the influence that income inequality has had on economic policy preferences and discusses two theoretical models that attempt to explain the relationship between inequality and support for redistribution. Section four develops a theory for how income inequality will affect the distribution of preferences within an electorate. Section five develops a modeling structure to test the theory and explains the data used. Section six presents the results and interpretation. Section seven offers concluding remarks and insights.

2.3 Income Inequality and Preference

It is important to address the relationship between increasing economic inequality and mass policy preferences, as the existence of a systematic relationship may lead America towards unequal democracy (Bartels 2008). If class-bias in preferences is increasing, and the government becomes more responsive to the preferences of a single segment of the population, then the government has become less representative of the whole population. If government institutions become more representative of the preferences of specific economic groups, then the voices of certain citizens are being heard unequally (Gilens 2005, 2009). While this assumes that rising inequality affects the distribution of preferences, which is the focus of this paper, it also assumes that it could lead to greater levels of political competition, which could ameliorate the class-bias in participation (Bartels 2008; Solt 2010; Leighley and Nagler 2013).

Researchers have identified two competing models to explain how increasing inequality affects policy preferences. The first model asserts that when inequality rises, the mass public responds by wanting greater levels of redistribution, such as social welfare or tax and transfer policies that redistribute resources from the wealthy to the poor (Meltzer and Richards 1981). The second model contends the converse, that when inequality rises, the mass public responds with less support for redistributive policies (Bénabou 2000). This section will provide an overview of these competing models, and the next section will provide empirical evidence from recent scholarship.

2.3.1 Inequality Generates Redistribution

Increasing economic inequality affects political preferences by pushing support for redistribution higher (Meltzer and Richards 1981). This theory is predicated on two hypothetical log-normal distributions with the same mean income, but with different median incomes and variances. When the distribution of incomes becomes more unequal, or the variance in incomes increases, support for policies that will move the median income towards the mean income will become more favorable to the mass public. In short, when inequality rises, the mass public responds by requesting more government activity in the form of redistribution. One of the theoretical implications of this model is that it produces a cross-cutting effect on preference formation as a result of increasing inequality.

An individual's preference for more governmental redistribution is conditioned on their placement in the income distribution. Individuals with incomes below the median will favor some sort of redistribution, to produce lower levels of economic inequality,

while those with incomes above the median do not. Thus, increasing income inequality produces a cross-cutting effect on support for redistribution (Page and Jacobs 2009). When the expected costs of redistributive programs increase, as a result of increased inequality, both the nature and type of benefits desired by the different classes becomes more opposed, with the poor showing greater desire for increased redistribution. The well-off will have stronger preferences for less redistribution, since the increased disparity between the poor and the well-off will increase the expected costs of redistribution. The poor will have greater preferences for redistribution since the expected benefits of redistribution will increase with economic inequality, as the relative disparity of their position becomes greater (Fong 2001)[3]. As inequality increases, and the median income moves farther below the mean income, a greater majority of individuals will be below the average income, and the overall effect will be a greater preference for redistribution, since it will benefit a greater segment of the population. Some empirical analysis has provided support for the Meltzer and Richards model (Brady 2004; Edsall 1984; McCartney et al. 2006; Enns and Wlezien 2011; Avery 2015; Gilens 2009).

2.3.2 Inequality Suppresses Redistribution Model

This theory proposes that rising levels of economic inequality will be met with lower levels of support for redistributive policies (Bénabou 2000). While some

[3] Individual preferences for the levels of redistribution, based on self-interest and egalitarian beliefs, are a function of an individual's relative disparity (Major 1994; Fong 2001). As income inequality increases, the relative disparity between the incomes of the poor and mean incomes increase, and the poor often seek both higher levels of redistribution based on self-interest, as well as a larger proportion of the poor reject the notions of equality-of-opportunity and become more supportive of redistribution (Newman et al. 2015).

researchers have asserted that this may seem counterintuitive (Kelly and Enns 2010), they conclude that rising inequality can actually drive support for redistribution lower. The causal logic inherent to Bénabou's theory is based on the assertion that redistribution can enhance aggregate welfare. This is a phenomenon not accounted for in the previous model. If one starts with the assumption that some redistributive policies can improve *ex ante* welfare, then the implication is that their political support tends to decrease with an increase to economic inequality.

Redistribution can lead to aggregate welfare improvements (Bakija 2014), so support for redistribution should be almost unanimous. However, when inequality rises, the aggregated benefits of redistribution decrease proportional to an increase in inequality. Therefore, when the aggregated benefits from redistribution are large relative to the levels of income inequality, this model predicts overwhelming support for redistribution. But when inequality rises, the proportion of the population that stand to lose from greater levels of redistribution increases. As long as the aggregated welfare benefit from redistribution is large enough relative to the levels of economic inequality, increases in inequality will produce lower levels of support for redistribution. One of the implications of this model is that support for redistributive policies will not differ by economic strata; that the majority of the population should have similar preferences for redistribution. There has been some empirical support for this theorized relationship between rising economic inequality and preference formation for social welfare policies (Kelly and Enns 2010; Soroka and Wlezien 2008; Ura and Ellis 2008; Moene and Wallerstein 2001).

2.3.3 Preference Stability

There are multiple reasons to believe that rising inequality should increase support for redistributive policies. Rational choice (see Lau 2003) and economic self-interest (Downs 1957, Sears et al. 1980) would indicate that as income inequality increased, members of poorer classes should show higher levels of support for redistribution, while members of higher economic classes should show lower levels. Increased income inequality can also affect the formation of political values such as egalitarianism (Brown 1988) and support for meritocracy (Newman et al. 2015), which can have differing effects on preferences for redistribution. Egalitarian values may be activated when inequality increases, leading to increased support for redistribution, but the activation of egalitarian sentiments is mitigated by socioeconomic status (Chatard and Selimbegovic 2007). Increasing income inequality also affects sentiments concerning meritocracy, or the idea that people who work hard should be able to get ahead, causing lower economic individuals to reject meritocracy and high-income individuals to become more supportive (Newman et al. 2015). While these factors would indicate that increasing income inequality should increase support for redistribution, empirical evidence of this phenomenon has been less forthcoming.

Researchers examining the effects of income inequality on policy preferences have concluded that, for the most part, preferences are stable within economic class. The rich and the poor have been found to respond to changes in the economic environment in consistently similar ways (Kelly and Enns 2010), as economic self-interest often plays only a minor role in shaping an individual's political behavior or policy preferences (Citrin and Green 1990; Sears and Funk 1991; Jaeger 2006; Margalit

2013). Additional researchers have found little evidence to show that rising inequality will produce a change in redistributive policy preferences as the opinions of the mass public follow a similar pattern over time, thus there is no great divergence between the rich and the poor (Soroka and Wlezien 2008; Ura and Ellis 2008). Thus, the preferences of those at the top and at the bottom move together, indicating that the difference in preferences between the rich and the poor should also remain stable (Ura and Ellis 2008), and inequality should not create an income-bias in the distribution of preferences in the population. As inequality changes, the rich will increase/decrease their support for redistribution in similar proportions to the poor.

These findings are explained, as Bartels (2005) indicates, by a permissive ambivalence in the American electorate on issues of income inequality. For the American people, there is a big gap between seeing growing inequality as a bad thing and wanting to do something about it. Page and Jacobs (2009) contend that the vast majority of Americans are ideologically liberal, but functionally conservative. Research has thus indicated that American people acknowledge that increasing economic inequality is problematic, but do not respond to this by desiring the government to act, or that it is the governments' responsibility to do anything about it. Justification for these findings have primarily come in two forms. The first concludes that the majority of individuals do not have enough information or interest to be able to connect their economic wellbeing to their policy preferences (Bartels 2005, 2008; McCall and Kenworthy 2009). The second concludes that inequality is not a large enough concern to change values, like individualism, that underlie individuals' preferences for redistribution (Bobo 1991; Feldman 1999; Page and Jacobs 2009). While preference for

inequality may be stable, inequality can influence the distribution of policy preferences by affecting the distribution of individuals within the economic spectrum.

There is some evidence indicating that increases in income inequality have affected preferences. In one of the few works that employs sub-state analysis, Newman et al. (2015) indicate that rising income inequality has changed individual preferences at the community level, through changing value structures. Gilens (2009) finds that rising income inequality can shift preferences on redistribution, but only marginally for people at the very top or boom of the income spectrum. Additionally, Flavin (2012) indicates that income inequality has increased, so has the general liberalism of the poor, suggesting that a larger proportion should be supportive of redistribution.

Whether or not changes in income inequality are able to change preferences in a systematic way between income groups, with the poor becoming increasingly supportive of redistribution and the wealthy being much less supportive, does not ipso facto indicate that it cannot change public preferences. In fact, the lack of a systematic change within, or between, income groups is not necessarily an indication that the distribution of preferences remains stable. Rising income inequality can change aggregate preferences by affecting the distribution of individuals, with preferences in-line with their economic positions, within an electorate. This is exactly how increasing inequality can change the distribution of preferences without changing individual group preferences. The next section develops a theory to show how income inequality will affect the distribution of preferences within an electorate

2.4 Income Inequality and the Distribution of Preferences

Although much of the previous research has failed to show that changing inequality can affect the preferences of individuals (Bartels 2005; McCall 2013), inequality researchers have mostly overlooked the effect of inequality in changing the distribution of individuals whose preferences are in-line with their economic position. The preferences of individuals at different places on the economic spectrum differ, often in-line with their economic positions. The preferences of the rich and poor often differ, with the poor wanting greater levels of redistribution (Gilens 2005; Gilens 2009; Avery 2015), and the well-off being less supportive of policies that ameliorate inequality. Researchers looking at support for greater redistributive policies have found that although the preferences of high and middle-class Americans do not differ substantially, the preferences of members of lower economic classes differ significantly from those of high and middle-class Americans (Enns and Wlezien 2011; Avery 2015). People at the top of the income spectrum have drastically different opinions regarding state intervention to redistribute incomes than people at the bottom of the income spectrum (Gilens 2009). Additionally, wealthier Americans show substantially lower levels of support for policies designed to reduce economic inequality, or its substantial effects (Kelly and Witko 2012; Hacker and Pierson 2010). This effect extends beyond preferences for redistribution to larger economic policy and ideological polarization.

2.4.1 Distributional Change

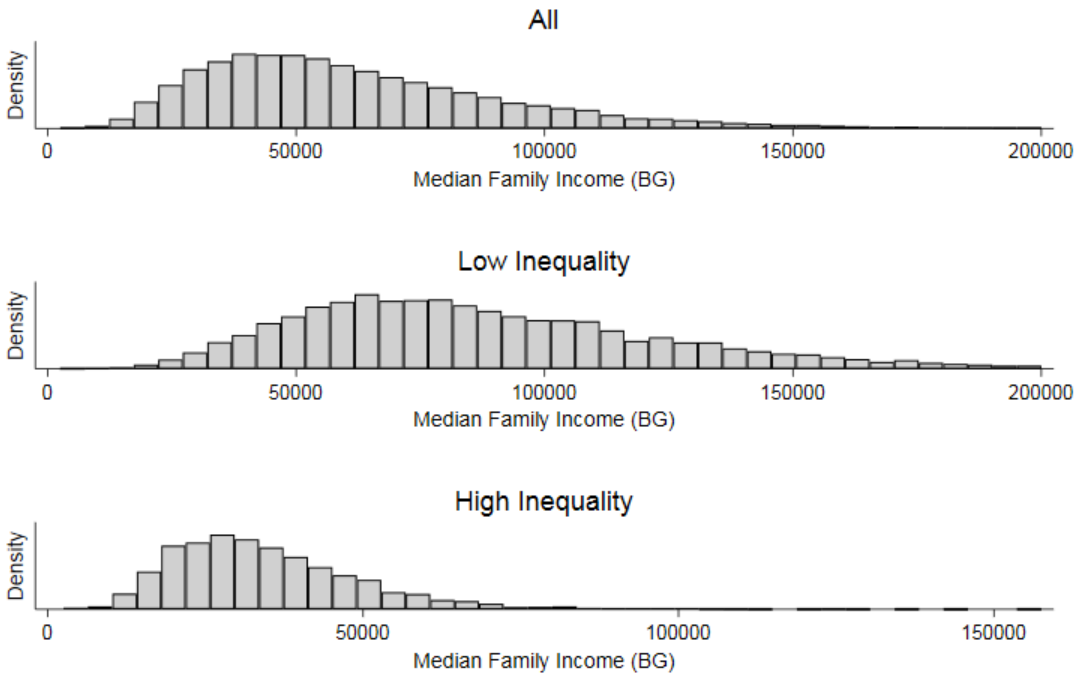
Higher income Americans disproportionately support conservative economic policies (Brady 2004), the Republican Party (Edsall 1984; McCartney et al. 2006), and

are more consistent in their partisan attachments (Garand 2010; Bhatti and Erickson 2011). In recent years, demographic shifts, increased partisan sorting along class lines, and blacks and women being disproportionately at the bottom end of the economic stratum, has led to partisanship becoming more stratified by income (McCartney et al. 2003). As a result, political parties, both in the electorate and in government, become more ideologically polarized during periods of high income inequality, leading to an increase in polarization in the mass public (Garand 2010). Democratic and Republican identifiers stake out divergent ideological positions as a function of income inequality, which in turn affects the polarization of representatives.

These findings indicate that increasing income inequality will increase partisan polarization; resulting from shifts in the demographic composition of the electorate, not a change in preexisting preferences. As there are existing differences in preferences for economic policies among class lines, inequality may be affecting preferences by changing the distribution of haves and have-nots within a population. As an example, in populations with near equality of incomes, most if not all of the individuals should hold similar self-interest based preferences on economic issues, and the group with that preference would be the majority. As income inequality increases, preferences will start to diverge, as some individuals move from the majority to the minority opinion. Where populations are economically homogeneous, there should be very little preference differences, as the benefit for any particular policy should be equivalent among the population. This is true for both poor and wealthy communities. An increase in redistribution would benefit the vast majority of an economically homogeneous poor community while it would carry a cost to the majority of an economically homogeneous

wealthy community. However, Figure 2.1[4] shows an interesting trend in the relationship between community inequality and median income. In communities in the bottom quintile of inequality (low inequality), the distribution of median incomes is more diffuse and includes more communities above the community median for the entire population. In communities in the top quintile of inequality (high inequality), the distribution of median incomes is less diffuse and disproportionately below the community median for the entire population. As inequality increases in a community, the likelihood that that communities' median income is going to be below the population median increases.

Figure 2.1. Distribution of Median Incomes at different levels of Income Inequality



As a recent example, California's Proposition 38 (2012) was a proposed increase to the state income tax rates that would have affected mostly wealthy Californians, and was expected to increase revenues to the state of about $10 billion a year, most of

[4] Figure 2.1 is the proportion of neighborhood median incomes in California between 1992 and 2012, separated by levels of inequality. High and low inequality corresponds to neighborhoods in the bottom and top quintile of inequality.

which would go to benefit poorer Californians. Verdugo City, a neighborhood of Glendale California, which is a northern suburb of Los Angeles, and Mount Laguna, a small city just south in San Diego County, are among the most economically equal populations in southern California. However, while Mount Laguna has a median income well above $100,000 a year, the median income of Verdugo City is less than $15,000 a year. In the 2012 election 85% of voters in Mount Laguna voted in opposition of the ballot proposition, while 82% of voters in Verdugo City voted to support it. This illustrates the relationship between economic homogeneity and preference homogeneity, when a population has low income inequality, the preferences of that population are founded on the relative economic position of that population. Yet this example just illustrates the effect at the ends of the economic stratum, extremely poor and extremely wealthy communities, and explains nothing about communities that have median incomes. However, even in cities with median incomes the trend appears to be consistent with their economic preferences, even cities whose median incomes are in-line with California as a whole show similar effects. Edison California, a suburb of Bakersfield, is also one of the most economically equal populations in California and has a median income similar to that of California as a whole. Voters in Edison opposed Proposition 38 by a margin of 67% to 32% support. In fact, for all cities in California in the bottom quintile of income inequality, the average absolute difference between support and opposition of ballot Proposition 38 was 31%.

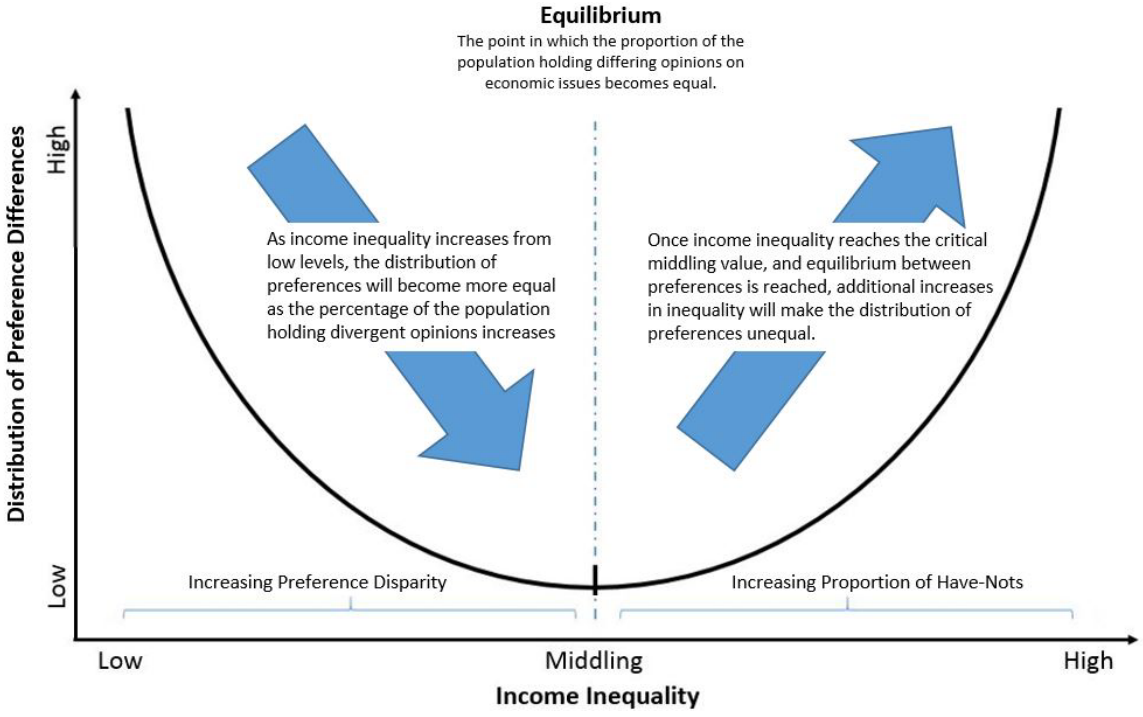
At higher levels of income inequality, political preferences start to diverge, as the proportions of the population at either side of the economic spectrum changes. Initially, as the level of income inequality increases, the proportion of individuals on the other

side of median income increases and the distribution of preferences will become more equal. As an example, if income inequality increased in Mount Laguna, the proportion of the population at lower levels of income would increase, shifting the median income down. This would likely increase the proportion of the population who support Proposition 38. Likewise, if income inequality increased in Verdugo City, the proportion of the population at higher levels of income would increase, shifting the median income up, likely leading to an increase in the proportion of the population who oppose Proposition 38. Each of these changes would cause the proportion of the population whose preference differs to become more equal. However, this equalizing effect should not continue once the population reached the highest possible economic parity, as there should be a point in which further increasing inequality should increase the proportion of the population at lower levels on the income spectrum.

At middling levels of inequality, there will be greater differences in political preferences as their will be a smaller difference in the proportion of the population that hold differing preferences. However, in populations with the highest levels of income inequality, preferences will be more polarized. At high level of income inequality, defined by a few individuals with relatively high incomes and many individuals with relatively low incomes, distributional inequality creates a situation in which preferences should be unequal, as the majority of the population should support economic policies that benefit the poor. Therefore, the distribution of preferences, as an effect of income inequality can be defined. At very low levels of income inequality, the distribution of preferences should be modally distributed, predicated on the median income of the population. As income inequality increases, the distribution of preferences should become more

normally distributed around median preferences. At parity, the distribution of preferences will be normally distributed, with equal proportion of individuals supporting and opposing economic policies aimed at stemming inequality. Once parity is reached, higher levels of inequality will cause the distribution of preferences to start to skew towards the preference of individuals with lower incomes, and the distribution of preferences will again become unequal. Looking at Proposition 38 once more, the average absolute difference between support and opposition for cities in the middle-income inequality quintile was 9% and 21% for the highest quintile.[5] This curvilinear relationship serves as an explanation why previous literature has been unable to determine how income inequality affects preferences, especially for economic policies.

Figure 2.2. Graphical Representation of Expected Effect of Income Inequality on Preference Distributions



[5] The average absolute difference in support and opposition for prop 38 in 2012, for all cities in California was 30.886% for the lowest income inequality quintile, 19.511% for the second quintile, 9.244% for the third quintile, 12.398% for the fourth quintile, and 20.536% for the highest quintile.

2.4.2 Hypotheses

Given the effect that inequality should have on the distribution of preferences towards economic policies, the difference between the proportion of the population that either support or oppose economic policies should become more evenly distributed as inequality increases. Preferences should continue to become more equally distributed as inequality increases, as the distribution of haves and have-nots in the population also become more equally distributed. Once a critical middle value is reached, and additional increases in inequality starts to increase the proportion of have-nots in relation to the proportion of haves, the proportion of the population below the population median income will increase, and preferences will start to become less equally distributed. As inequality reaches its highest levels, the distribution of preferences should again become unequal, as the proportion of the population at the bottom of the income distribution increases. This theory is presented graphically in Figure 2.2.

This theory produces four testable hypotheses:

Hypothesis 2.1: *Communities with low median incomes will have higher support for economic policies than communities with a high median income*

Hypothesis 2.2: *When inequality is low, the distribution of preferences will be skewed towards the median income of the community*.

Hypothesis 2.3: *As income inequality increases from its lowest levels, the distribution of different preferences will move toward parity.*

Hypothesis 2.4: *Once income inequality reaches a critical level, increases in inequality will produce deviations in the distribution of preferences.*

2.5 Data and Methods

To test these hypotheses, I employ election and demographic data at the census block-group level in the state of California from 1992-2012. This analysis will take

advantage of two unique factors. First is the state of California's publically available voter information at the census block and tract level. Second is California's systematic reliance on direct democracy in the form of ballot initiatives. Examining ballot initiatives allows this research to determine preferences from voting data, which covers a larger proportion of California than any currently available public opinion polling data. From 1910 through 2012, 1,216 statewide ballot propositions were on the California ballot. However, this analysis is bounded between 1992 and 2012, which includes 285 ballot propositions, 20[6] of which specifically relate to issues of economic inequality, seen in Figure 2.3. This method produces between 21,000 and 22,000 observations per year, which is much larger than previous studies. Research at the census tract level will allow for a greater variation of political and socioeconomic contexts, and allow this research to control for the spatial components of inequality and preference formation as previous studies have found high levels of global and local spatial autocorrelation in regional income dispersions (Rey and Montouri 1999). The information on economic makeup at the census block level is available through the California Secretary of State's office in concert with the U.S. Census Bureau and California Department of State.

2.5.1 Data

The primary dependent variable for preferences is the absolute difference between support and opposition for ballot initiatives with an explicitly economic frame. The selection of the subset of ballot initiatives was based on media framing these

[6] The analysis is limited to propositions which appear on the general election ballots to avoid the potential issues of bias inherent to midterm or special elections.

initiatives as economic policies directed at improving inequality[7]. For each of the propositions, a census block-group measure of preference distribution was calculated from the California Statewide Database. This measure is equal to the absolute difference in the proportion of the population that supported and opposed each proposition. This measure indicates how equal the distribution of preferences is within a population. The value ranges between a low of zero, indicating that an equal proportion of the population supported and opposed the proposition, and a value of one, indicating that the entire population voted either to support or oppose. The mean value for this variable is .202 with a standard deviation of .139.

Figure 2.3. California Ballot Initiatives with Inequality Frame (1992-2012)

Election	Name	Description	Outcome
November 1992	Proposition 167	Increase a variety of taxes	Defeated
November 1993	Proposition 172	Add a 1/2% state sales tax targeted for local public safety	Approved
	Proposition 173	$185 million in bonds for first-time homebuyers	Defeated
November 1994	Proposition 185	4% tax on retail sales of gasoline	Defeated
November 1996	Proposition 210	Minimum wage increase to $5.00 (1997), and $5.75 (1998)	Approved
	Proposition 217	Reinstate 10% (over $115,00) and 11% (over $230,000) tax rates	Defeated
November 1998	Proposition 10	New tax on cigarettes to pay for childhood programs	Approved
	Proposition 11	Local governments tax revenue sharing agreements	Approved
November 2000	Proposition 37	Redefines some fees as taxes	Defeated
November 2002	Proposition 47	$13.05 billion in bonds for kindergarten-university facilities	Approved
November 2004	Proposition 67	Fund emergency medical services with tax increase	Defeated
November 2005	Proposition 76	Lid on school funding	Defeated
November 2006	Proposition 87	New tax on gas, oil	Defeated
November 2008	Proposition 3	$980 million in bonds for children's hospitals.	Approved
	Proposition 10	$5 billion in bonds for alternative fuels	Defeated
	Proposition 12	$900 million in bonds for home, farm purchasing assistance for vets	Approved
November 2010	Proposition 24	Eliminates three business tax breaks	Defeated
November 2012	Proposition 30	Jerry Brown's Tax Increase (revenues for general fund and education)	Approved
November 2012	Proposition 38	Molly Munger's State Income Tax Increase for Education	Defeated
November 2012	Proposition 39	Income Tax Increase for Multistate Businesses	Approved

[7] Keyword searches of news articles from the Los Angeles Times for all ballot propositions between 1990 and 2012 were perfumed using Lexicoder. The searches included the following key words: Income inequality, Income distribution, Low income, Minimum wage, Rich and Poor, unemployment, or Income class. This set of key words has been used previously in research on media attention to income inequality (Eshbaugh-Soha and McGauvran 2018). Keywords searches identified 20 ballot propositions that were framed as issues dealing with inequality.

The primary independent variable is a measure of income inequality at the community level. There are some reasons to believe that measuring inequality at the community level is the most appropriate measure of inequality as it most closely mirrors the levels of inequality actually experienced by individuals[8]. A Gini coefficient for income inequality is generated from income responses to the American community, aggregated to the census-block level, for the respective years, producing a Gini coefficient for each block-group-year. Over the sample, the Gini coefficient ranges from .204 to .670 with a mean of .362 and a standard deviation of .069. The size of the population for the block-groups ranges from 4 to 39,248 with a mean of 1550 and a standard deviation of 930. A squared term for income inequality is also included to account for the curvilinear relationship between inequality and the distribution of preferences.

The model includes a number of control variables measured at the block-group level. These controls include median family income, college graduation rates, gender composition, ethnic composition, difference in the two-party vote share, and ethnic

[8] Although political science researchers have yet to tackle the problem of determining the appropriate contextual level at which to measure inequality, the field of medicine can potentially provide some insights, as it has a long history of inequality research. Examining the effects of income inequality on morbidity, Soobader and LeClere (1999) and Krieger et al. (2002) indicate that block group and tract socioeconomic measures performed best. Since these studies, the levels of aggregation have become commonly accepted contextual levels in the fields of public health and epidemiology. While morbidity and the distribution of political preferences may be disparate phenomena, there are some reasons to believe that they have similar response mechanisms as many socioeconomic factors, such as education or income, affect preferences and health in much the same ways. The lower level of analysis has the additional benefit for the study of voter preferences by examining the economic and political context that people actually live in. Levels of economic inequality are the most vivid within one's community, as most individuals spend very little time far from home. Examining income inequality at the state or national level only serves as an average level of inequality that all individuals within a population should experience and thus overlooks important intra-state variation in inequality. Additionally, looking at the community level allows this research to account for the effects of specific micro-targeting that political campaigns do at the sub-state level. Micro targeting is the targeting of specific groups for campaign ads and information, and these groups are target based on demographic data that should make them susceptible to preference adherence or change (Korolova 2010). Modern micro-targeting has its origins in the early 1990s as modern computing technology made it simpler and faster (Sosnik et al. 2006), thus should exert some effect at the community level during the research timeframe.

fractionalization. Socioeconomic status (SES) is a known determinant of economic policy preferences (Alesina and Giuliano 2009), as individuals at different points on the income spectrum often want different things. Previous studies have used income and education as a proxy for socioeconomic status. This study follows previous research and employs both median family income and the percentage of residents 25 or older who are college graduates as a proxy for SES. Both of these measures come from the US Census Bureau's American Community Survey. To control for demographic features, the analysis controls for the percentage of the population that are female and the percentage of the population which identify as Anglo, African-American, Latino/a, and other (US Census Bureau), with percentage white being the omitted category.

Intergroup conflict, rather than economic group conflict, can affect preferences for redistribution (Alesina and Giuliano 2009), especially for members of minority populations, so this study employs a Herfindahl–Hirschman Index (HHI) of racial concentration for each block-group. The HHI is a sum of the squared percentage of each racial group that makes up the population total, producing a 0-1 index of the concentration of a single racial/ethnic group relative to all others:

$$HHI = \sum_{i=1}^{n} {p_i}^2$$

where p_i is the fractional share of racial/ethic group *i* and *n* is the total number of racial/ethnic groups within the population. The HHI is a 0-1 index indicating the concentration of a population on a single firm, in this case a political party. A value of one indicates that all residents identify as the same racial/ethnic group, and as the value decreases to zero, the degree of racial/ethnic dispersion increases. This is a common

metric used to measure the degree of ethnic homogeneity/ heterogeneity at the nation state level (see Anderson and Paskeviciute 1997).

2.5.2 Spatial Regression

Research on the determinants of political preferences has indicated that socioeconomic status, race, and proximity to others who are politically engaged (Verba, Brady, and Schlozman 1995), can all influence support for economic policies. All of these characteristics have a spatial component, and so there is some reason to expect spatial dependence. The spatial dependence of individual proximity becomes an important function of preference decisions because people live in close proximity to individuals of similar racial/ethnic and economic status. Research on US metropolitan areas have concluded that most individuals live in highly racial/ethnic and economically segregated areas (Kain 2003). Though previous research has indicated the need to account for proximity to others who vote (such as Merill and Groffman 1999), in terms of real distance, research has yet to account for spatial dependence in their models, and thus leaves it in the error term. By employing spatial regression analysis, this study will account for issues of spatial proximity when addressing the effect of increasing income inequality on political preferences. I test for spatial autoregression using Morans-i test.[9]

[9] Moran's i-test of spatial autoregression is employed to determine if spatial dependence must be accounted for when modeling voting data. Moran's i tests observation locations and values simultaneously for correlation with other nearby observations in a spatial dimension. Using a set of observations and associated variables, this test evaluates whether the pattern is clustered, dispersed or random. The Moran's i-test for spatial autoregression was significant for all years ($p>.05$) showing a significant spatial autocorrelation. In this case a spatial autoregressive model must be employed.

There are two distinct forms of spatial autoregressive models, error dependence and lag dependence, and the specific model used depends on the nature of the spatial dependence. Starting with the OLS model:

$$y = X\beta + \varepsilon$$

where y is a N × 1 vector of observations on the dependent variable, X is a N × K matrix of observations on K independent variables, β is a K × 1 vector of regression coefficients, and ε is a N × 1 vector of errors assumed to be normally and independently distributed (Anselin and Rey 1991). In the spatial error model the errors can no longer be assumed independent and identically distributed and the regression model takes the following form

$$y = X\beta + \lambda W\varepsilon + \tau$$

where λ is the spatial autoregression coefficient, W is a N × N matrix of spatial weights representing the geography of the observational units, and τ is a N × 1 vector of errors assumed to possess the usual properties. In this form, spatial dependence influences the error term only and it has been shown to influence the power of tests for heteroscedasticity and the structural stability of regression coefficients (Anselin and Rey 1991).

In the spatial lag model, the standard regression equation may be rewritten as

$$y = \gamma Wy + X\beta + \tau$$

where γ is the spatial autoregression coefficient. In this form, the value of the dependent variable at a particular location is jointly determined by its values at other locations and OLS estimation is no longer consistent (Anselin and Rey 1991). For both the lag and

error models, the regression equation is solved using maximum likelihood estimation (Anselin and Getis 1992).

2.5.3 Single State Analysis

Single state analysis is often met with questions regarding the external validity of any findings produced. Though there is some evidence that focusing on California, a state with considerable diversity, may produce meaningful findings (Hajnal 2007). Hajnal indicates that though California is obviously not fully representative of the entire nation, the state is optimal for studying the effects of race and class since the differences that do exist indicate trends that should be expected for the nation in the future. California has a long history with direct democracy, and the voters in this state rely more heavily on ballot propositions to decide state policy more than most states (Waters 2003). A heavy reliance on direct democracy means that voters in the state of California are likely to be better informed (Gerber 1999) due to the prominence of major campaigns focusing on most initiatives. Demographically, California looks like what researchers predict the rest of the nation will look like in the near future (Reyes et al. 2001; Census Bureau 2001). Economically, California is a very diverse state. According to the Bureau of Labor Statistics, California has regions that rely heavily on a diverse set of sectors that are prominent around the country. As such, California serves as a good proxy for the economic makeup of many regions around the country. All of these characteristics make California an important test case, and though it may not be fully externally applicable to the rest of the nation at present, it accounts for trends that are expected elsewhere in the near future.

2.6 Results and Interpretation

2.6.1 Median Income and Support for Liberal Economic Policies

This analysis starts by examining whether communities with higher median incomes will have lower support for economic policies aimed at economic inequality. The relationship between median income and support for economic policies is presented in Table 2.1. The first column in Table 2.1 indicates the expected effect of income of support for redistributive policies when inequality is unaccounted for. Model 2 accounts for income inequality; while Model 3 examines a potential interactive effect between median income and inequality and support for redistributive policies[10]. When all of the propositions are examined together,[11] the findings indicate that communities with lower median incomes are expected to have greater levels of support for liberal economic policies, and communities with higher median incomes will be less so. This finding is consistent across all three model specifications. When the median household income of a community increases by $10,000, there is an expected decrease in support for redistributive economic policies of about 1.5%, holding all other variables constant. A standard deviation increase in median family incomes for a community is expected to decrease support for liberal economic policies by about 2.5%. At the 20th percentile of community incomes, expected support for liberal economic policies is about 58%, while at the 80th percentile, expected support for these policies is about 42%. This provides evidence for the first hypotheses, that the majority of preferences will be contingent on the median income with communities with low median incomes showing low support for

[10] The Akaike information criterion (AIC) indicates that Model 3 best fits the data. All further interpretation will use Model 3.

[11] Results for each specific proposition are available in Appendices A and B.

liberal economic policies, while communities with high median incomes show lower support for these policies

Table 2.1. The Effects of Median Income and Income Inequality on Support for Liberal Economic Policy (All Propositions)

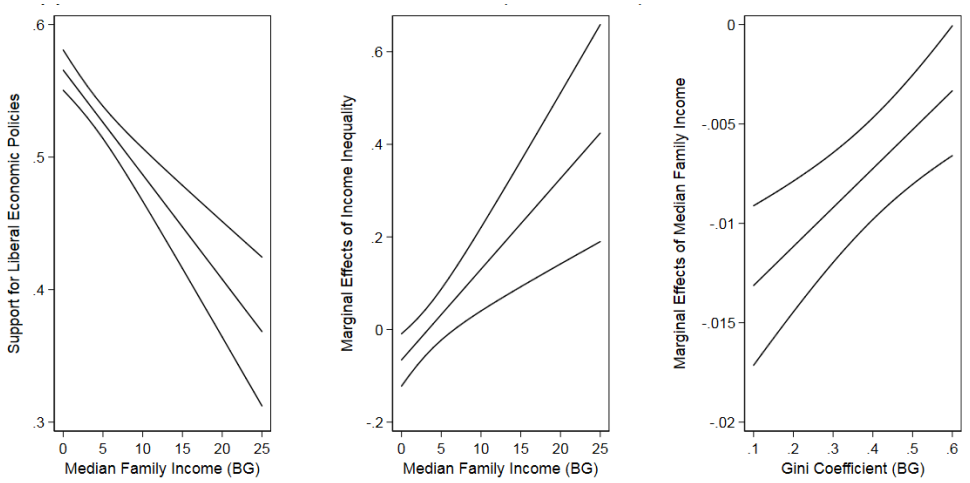
	All Propositions (1992-2012)		
	(1)	(2)	(3)
Median family Income (in $10,000)	-.010***	-.009***	-.015***
	(.001)	(.001)	(.002)
Income Inequality		.032	-.066**
		(.031)	(.028)
Median Family Income* Income Inequality			.020***
			(.005)
% College graduates	.002***	.002***	.002***
	(.000)	(.000)	(.000)
% Female	-.001***	-.001***	-.001***
	(.000)	(.000)	(.000)
% African American	.001	.001	.001
	(.001)	(.001)	(.001)
% Latino\a	.001***	.001***	.001***
	(.000)	(.000)	(.000)
% Other	.007***	.007***	.007***
	(.002)	(.002)	(.002)
% Democratic Vote Share	0.174***	0.173***	0.174***
	(.036)	(.036)	(.035)
Ethnic Fractionalization	.002	.001	.000
	(.022)	(.022)	(.022)
Constant	0.429***	0.415***	0.445***
	(.027)	(.033)	(.031)
Observations	430,526	430,526	430,526
R-squared	.156	.156	.157
AIC	-199961.2	-199952.1	-200181

Dependent Variable: Voteshare in Support of Liberal Economic Policies. *p>.05; **p>.01; ***p>.001

The first panel of Figure 2.4 graphically illustrates the relationship between median household incomes and support for liberal economic policies. Consistent with the theory, support for economic policies is based upon the relationship between the median income of the population being examined and that of the state as a whole. The

average median income in California for the period being examined was $47,242, which aligns with the point where expected support for these policies drops below 50%. This provides further support for Hypothesis 1; communities where the median income is below that of the state median are expected to support economic policies aimed at inequality, while communities with a median income above that of the state are expected to oppose such policies.

Figure 2.4. Expected Effects of Income Inequality on Support for Economic Policy: Support for All Liberal Economic Positions (1992-2012)



The results indicate that inequality is conditioning the effect that income has on support for redistribution. This conditional relationship is evidence for the idea that inequality is affecting preferences for redistribution independent of its effects on the income distribution. The marginal effects of the interaction from Model 3 or Table 2.1 are presented graphically, for ease of interpretation, in the second and third panels of Figure 2.4. The second panel in Figure 2.4 indicates that the effect of inequality increases as median family income increases. In short, communities with higher median incomes will have a greater expected increase in support for redistribution when inequality increases from its lowest to highest levels. This is consistent with

expectations concerning the distribution of preferences. In low median income populations, the majority of residents should already support redistribution, so a change in inequality should not greatly affect levels of support. In high median income communities with low inequality, the majority of residents should oppose redistribution. However, as inequality increases in high median income populations, the proportion of individuals below the state median should increase, increasing support for liberal economic policies. This is likewise true for low-income populations. In the lowest income populations, increases in income inequality are produced when some individuals' incomes increase above the median, which actually produces small expected decreases to support for liberal economic policies. Therefore, the marginal effect of income inequality should start negative and quickly increase to positive as median family income increases, Model 3 in Table 2.1 provides evidence for this relationship.

The third panel of Figure 2.4 graphically represents the marginal effect of median income across different levels of inequality. The model again provides evidence that is consistent with the expected effects. At low levels of inequality, the majority of the population should hold similar preferences and those preferences are predicated on economic position. Therefore, increases in median income at the lowest levels of inequality should increase opposition to liberal economic policies. Furthermore, the distribution of preferences at the highest levels of inequality is already well defined, making the effect of increasing the median income relatively week. Panel 3 of Figure 2.4 provides evidence in support of these trends.

Turning to the contextual control variables, the results reveals a number of interesting, and expected, relationship with support for liberal economic policies. First,

there is a strong and significant positive relationship between the proportion of the population with a college degree and support for redistribution. This finding provides support to the notion that income and inequality may be activating egalitarian values, which is increasing support for these policies. Higher education increases egalitarian attitudes (Chatard and Selimbegovic 2007), and the activation of these attitudes may be driving up support. Although this research falls short of testing this interactive relationship, it does indicate the possibility of its existence. Furthermore, the percent of the population that voted Democratic can also serve as a weak proxy for egalitarian values (Brown 1988). Taken together, there is some evidence that inequality is affecting support for redistribution by activating inherent societal values. Finally, communities with higher percentages of the population that are Latino or other race/ethnicities are more supportive of redistribution, while populations with higher percentages of females are less so. Although these findings provide some insight into the relationship between income inequality and preferences for liberal economic policies, these results only provide a part of the relationship.

2.6.2 Distribution of Preferences (Liberal Economic Policies)

This research now turns to examining the relationship between income inequality and the distribution of preferences. The results in Table 2.3 indicate that preferences are responding to differing levels of inequality in much the same was as theorized. Table 2.2 presents four different model specifications. Models 1 and 2 of Table 2.2 represent the naïve and fully specified baseline models, while Models 3 and 4 represent

the naïve and fully specified interactive models[12][13]. The findings from the interactive model are consistent with Hypothesis 2, when inequality is low, the expected difference in preferences is large.

Table 2.2. The Effects of Income Inequality on Preference Distributions (All Props.)

	All Liberal economic Propositions (1992-2012)			
	1	2	3	4
Income Inequality	-.014	.028	-0.718***	-0.488***
	(.053)	(.022)	(0.102)	(.053)
Income Inequality^2			0.980***	0.686***
			(0.138)	(.085)
Median family Income		.003***		.002***
(in $10,000)		(.001)		(.001)
% College graduates		-.000		-.000
		(.000)		(.000)
% Female		-.000***		-.000***
		(.000)		(.000)
% African American		-.001*		-.001*
		(.000)		(.000)
% Latino\a		-.001***		-.001***
		(.000)		(.000)
% Other		-.001***		-.001***
		(.000)		(.000)
% Democratic		-0.121**		-0.120***
		(.053)		(.052)
% Democratic^2		.339***		.336***
		(.077)		(.078)
Ethnic		.007		.008
Fractionalization		(.022)		(.023)
Constant	0.207***	0.209***	0.329***	0.297***
	(.019)	(.025)	(.024)	(.022)
Observations	430,526	430,526	430,526	430,526
R-squared	0.000	0.062	0.003	0.064
AIC	-404925.5	-432833.5	-406149.3	-433487.6

Dependent Variable: Absolute difference in support and Opposition to Specific Proposition.
*p>.05; **p>.01; ***p>.001

[12] The Akaike information criterion (AIC) indicates that Model 4 best fits the data. All further interpretation will use Model 4.

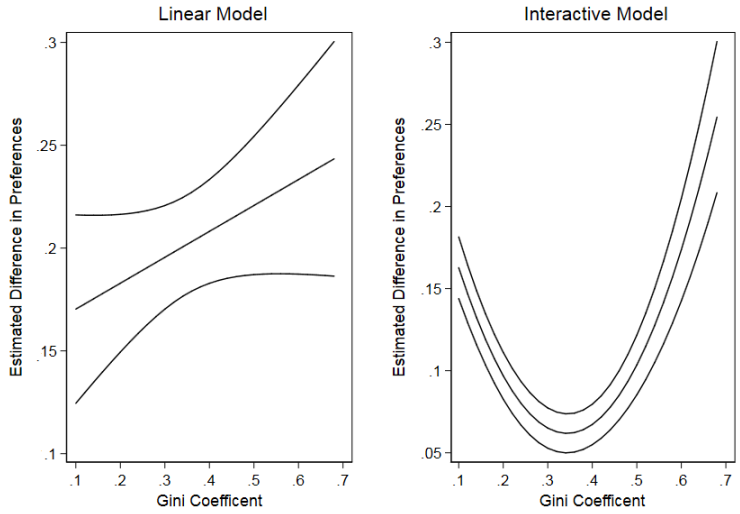
[13] Results for each specific proposition are available in Appendices C and D.

Interestingly, the results from the baseline model show no statistically significant relationship between inequality and the distribution of preferences. This may explain why previous researchers were unable to confirm the relationship between increasing inequality and change in preferences for redistribution. When the results from Table 2.2 are considered, the relationship is consistent with the theory. Low levels of inequality are associated with a high degree of preference uniformity, where a large proportion of the population holds similar preferences. These preferences are linked to the median income within the population, where much like the examples of Verdugo City and Mount Laguna, low inequality low income communities are expected to overwhelming support liberal economic policies while low inequality high income communities are expected to oppose them. In fact, at the lowest level of inequality, the average expected difference in preferences is 17%, equivalent to a vote of 42% to 59%.

The results from Table 2.2 are displayed graphically in Figure 2.5. The left pane in Figure 2.5 is the expected effect of inequality on the distribution of preferences from the linear Model 2, while the right pane in Figure 2.5 is the expected effect of inequality on the distribution of preferences from the interactive Model 4. As the interpretation of a nonlinear polynomial relationship is somewhat difficult with only the calculated coefficients, the interpretation will stem from the graphical representation of the expected relationship. The results indicate that as inequality levels begin to increase, expected preference differences converge. This indicates that as inequality approaches middling levels, the distribution of preferences start to become more equal. In fact, once community level inequality reaches the median levels for California, distribution of preferences reach their most equal level. That is, when all propositions are examined

together, the expected difference in the distribution of preferences shrinks to almost 5% at middling levels of income inequality. This provides support for Hypothesis 3 and indicates that the distributions of preferences are consistent with their theorized relationship.

Figure 2.5. Expected Effects of Income Inequality on Preference Distributions: All Liberal Economic Positions (1992-2012)



As levels of inequality start to approach median inequality, preferences start to become more normally distributed. Communities with levels of inequality that are close to the median inequality for California will have the greatest equality in preferences. These results, taken together with the results from Table 2.2, can provide some insight on the functional shape of the distribution of preferences with median inequality and differing levels of median income. The distribution of preferences at middling income appears to be functionally normally distributed with a slight skew in the direction of median income. The expected difference in the distribution of preferences for communities with median inequality and median income are not discernable from zero. In short, communities with median income and inequality, half of the population should support liberal economic policies while half of the population should oppose them. This

indicates that a community with median income and inequality should have equally, and a functionally normal, distributed preferences. This functionally normal distribution is expected to skew in the direction of median income when median income is greater, or less than, the statewide median. Communities with median inequality and low income are expected to have a slight preference advantage for support of liberal economic policies while communities with median inequality and high incomes are expected to have a slight preference advantage in opposition.

Figure 2.5 also provides support for Hypothesis 4. Once income inequality reaches a critical middling value, additional increases in inequality are expected to produce deviations in the distribution of preferences. Figure 2.5 displays this trend graphically; when income inequality reaches its highest levels, the distribution of preferences converges back to more unequal levels experienced at the lowest levels of income inequality. Along with the trends presented in Figure 2.3, the trends in Figure 2.5 provide a clearer image of the functional form of preference distribution. As a community's level of inequality moves beyond the median, the distribution of preferences starts to skew towards the preferences of the lower income stratum. In communities with levels of inequality 10% higher than the statewide median, the median income must be 1.5 times larger than the statewide median to produce expected levels of opposition to liberal economic policies above fifty percent. In communities with inequality one standard deviation above the statewide median, only communities with median incomes slightly more than twice as large as the statewide median are expected to have less than 50% support of liberal economic policies. No communities with inequality levels two standard deviations above the statewide median are expected to

oppose liberal economic policies. As inequality levels rise, the distribution of preferences starts to skew in support of liberal economic policies, and this effect is contingent on the median income of the community.

2.6.3 Median Income, Inequality, and Non-Economic Policies

It is a possibility that the relationship found in the previous analysis is not specific to economic policies, indicating that it could be an effect of some omitted variable or artifact of the data generating process. To test this possibility, the same modeling technique was performed on a subset of propositions that do not activate economic or class based considerations. Although the majority of propositions between 1992 and 2012 were not framed around the issue of inequality in the media, there is some reason to believe that many of them are activating latent economic or class based considerations. Forty five percent of all ballot propositions in the sample period were focused on changing tax rates or levying bonds for infrastructure improvement. Though many of these were not specifically framed as issues of inequality, tax and bond issues do activate latent class based considerations (McCaffery and Baron 2006). An additional fifteen percent of the propositions focus on issues related to the criminal justice system, and issues of this kind are strongly related to class and race/ethnicity based considerations (Hagan and Alboneti 1982). A final twelve percent focus on healthcare, education, and the environment, which can also activate class based sentiments.

Figure 2.6. California Ballot Initiatives with No Economic Frame (1992-2012)

Election	Name	Description	Outcome
November 1992	Proposition 159	Establish Auditor General as statewide constitutional officer	Defeated
	Proposition 161	Mentally competent adult may request aid-in-dying	Defeated
	Proposition 164	Term limits on California members of U.S. Senate and U.S. House	Approved
November 1996	Proposition 215	Exempts patients criminal liability for possessing and growing marijuana	Approved
November 1998	Proposition 4	Prohibit trapping of fur-bearing animals	Approved
	Proposition 6	Prohibits human consumption of horses	Approved
November 2004	Proposition 59	Public records, open meetings	Approved
	Proposition 70	Tribal gaming compacts	Defeated
November 2008	Proposition 2	Regulations on animal confinement practices	Approved
	Proposition 8	Eliminates the right of same-sex couples to marry	Approved
	Proposition 11	Independent commission to draw legislative district boundaries	Approved
November 2010	Proposition 19	Legalize and tax marijuana	Defeated
November 2012	Proposition 34	"End the Death Penalty"	Defeated
	Proposition 37	Mandatory Labeling of Genetically Engineered Food	Defeated

Using a coding scheme similar to the one that identified the ballot propositions with an inequality frame, this research identified fourteen ballot propositions that should not activate class or economic based considerations. The full list of propositions can be found in Figure 2.6, but include propositions dealing with term limits, death with dignity, and a moratorium on the consumption of horsemeat. The propositions are aggregated and then examined for a similar relationship to median income and inequality as the propositions that were framed as issues of inequality Table 2.3 provides the results of modeling the effects of median income and income inequality on support for these issues. The results indicate that they do not respond to levels, or distribution, of incomes in the same way that liberal economic policies do. In fact, changes from the lowest levels of income, or inequality, to the highest levels do not produce an expected change in either support for these policies, or the distribution of preferences, that is

distinguishable from zero. These results are consistent across both the baseline(1) and interactive(2) models.

Table 2.3. The Effects of Median Income and Income Inequality on Support for Non-Economic Policies (All Propositions)

	Support for Propositions		Distribution of Preferences	
	(1)	(2)	(1)	(2)
Median family Income	.000	-.000	-.000	-.000
	(.001)	(.001)	(.001)	(.001)
Income Inequality	-.015	-.024	.007	.094
	(.016)	(.033)	(.027)	(0.104)
Median Family Income* Income Inequality		.002		
		(.004)		
Income Inequality^2				-0.120
				(0.125)
% College graduates	.001***	.001***	.001***	.001***
	(.000)	(.000)	(.000)	(.000)
% Female	.001***	.001***	-.002***	-.002***
	(.000)	(.000)	(.000)	(.000)
% African American	.000***	.000***	-.000	-.000
	(.000)	(.000)	(.000)	(.000)
% Latino\a	.000**	.000**	-.001***	-.001***
	(.000)	(.000)	(.000)	(.000)
% Other	.000	.000	-.002**	-.002**
	(.001)	(.001)	(.001)	(.001)
% Democratic Vote Share	.038***	.038***	.076***	.076***
	(.013)	(.012)	(.022)	(.022)
Ethnic Fractionalization	-.020**	-.020**	.001	.001
	(.009)	(.009)	(.010)	(.010)
Constant	0.512***	0.515***	0.366***	0.351***
	(.013)	(.014)	(.023)	(.033)
Observations	304,791	304,791	304,791	304,791
R-squared	.015	.015	.063	.063

Dependent Variable: (Support Models): Voteshare in Support of Liberal Economic Policies; (Distribution Models): Absolute difference in support and opposition to Specific Proposition.
*p>.05; **p>.01; ***p>.001

Figure 2.7. Expected Effects of Median Income and Income Inequality on Preference Distributions, All Non-Economic Positions (1992-2012)

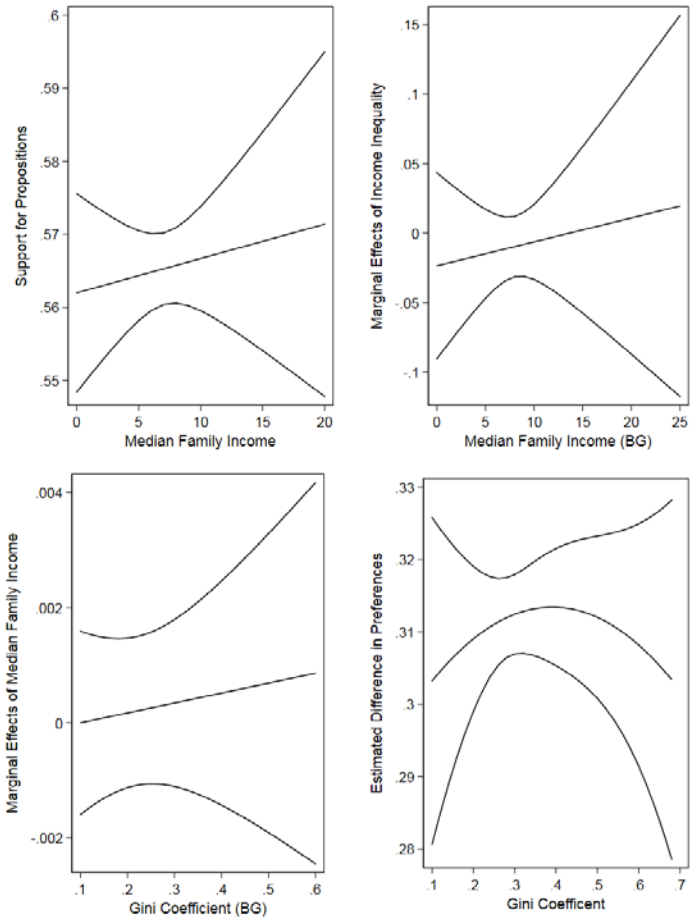


Figure 2.7 graphically represents the results from the interactive models(2) from Table 2.3, shoeing both the baseline and marginal effects of different levels of income and inequality. These results provide evidence that the relationship between median income and income inequality, and support for redistribution and the distribution of preferences is not being caused by an omitted variable or some artifact of the data generating process. These results indicate there is something specific to liberal economic propositions that connect median income to support for redistribution and income inequality to the distribution of preferences.

2.7 Conclusion

The findings from this study indicate that income inequality affects preferences for redistributive policies, but not in the way that previous research has expected. Changing levels of income inequality is most likely not affecting the preferences of individuals at specific points on the economic spectrum, but is affecting the distribution of incomes, and thus preferences. When populations become slightly more unequal, the distribution of preferences supporting and opposing redistribution become more equal. Once inequality reaches a certain point, higher levels of inequality experience a divergence of preferences. This is likely due to the distributional qualities of income inequality, with high inequality being defined by large populations with relatively meager incomes and a small segment of the population with relatively large incomes.

One of the implications of this research is that rising inequality could potentially have an effect on political competition. As preferences become more equally distributed within a population, politics can become more competitive, as each side tries to win its preferred position in an increasing less safe district. This could lead to some dramatic effects, as increased electoral competition often leads to increased mobilization efforts and increased participation in elections. If increasing inequality is producing an environment where more people are coming out to vote, this could potentially lead to policy enactments that favor the lower economic stratum, and potentially lead to a decrease in income inequality. When inequality increases, the proportion of the population below the mean income increases, moving the median and mean incomes apart. When this happens, the proportion of the population that could benefit from redistribution, the proportion of the population below the mean, increases. Additionally,

since the poorer classes vote at much lower rates than wealthier classes, there is a greater possibility to mobilize those populations, and increased competition could lead to greater representation for the poor.

All of these trends could lead initial increases in income inequality to produce greater participation and representation. However, once that middling value for inequality is reached, additional inequality leads to lower levels of competition, and thus lower levels of mobilization and participation. The potential problem with this scenario is that in these populations, the voting population will skew towards the top of the income distribution, to those who do not benefit from redistribution, and the overall effect could be fewer policies aimed at inequality, and thus more inequality. This could lead to a potential inequality trap, which causes inequality to breed additional inequality.

The results from the analysis may also provide some insight as to why previous researchers have found that increasing income inequality leads to increasing representative inequality. As inequality begins to increase, the distribution of preferences begins to become equal, and this may provide representatives greater choice in the preferences they hold. Ostensibly, when a population has a disproportionate preference, where a large proportion of the population supports or opposes a policy, their elected representative should also hold that preference, as not doing so may hinder their future electoral fortunes. However, when the preferences of the population are split, the representative has more leeway in preference holding. In these situations, segments of the population may be able to use resources outside of their voting ranks, such as large campaign contributions or personal sway, to motivate representatives to their preference positions. In this situation, the preferences of the

wealthy should become more representative, as has been shown in previous literature (Bartels 2008), and representation becomes more unequal.

Finally, as previous researchers have been unable to determine the relationship between inequality and preferences, this research provides some additional insights. Previous researchers attempting to find a linear relationship between inequality and preferences have overlooked the possibility of a curvilinear relationship. Preference distributions are contingent on median incomes, but also sensitive to changes in inequality.

CHAPTER 3

A COMPETITION THEORY OF THE EFFECTS OF INCOME INEQUALITY ON POLITICAL PARTICIPATION

3.1 Chapter Abstract

Previous research on the relationship between income inequality and political participation finds that societies with the greatest income equality often have the highest levels of participation, while the most unequal populations often have the lowest levels of participation. While these studies specify the relationship between inequality and participation as linear, there are reasons to believe that changes in inequality affect rates of political participation contingent on both the size of the change as well as the current levels of inequality affecting the population experiencing change. Using community level voting data in California from 1992 to 2012 and accounting for the spatial components of participation and income, this paper provides evidence that the effects of income inequality on participation depends on the current levels of, and size of change in, income inequality. This paper finds that increases in income inequality actually increase participation in economically homogeneous populations, likely due to increases in political conflict and mobilization, while increases in income inequality in highly unequal populations decrease participation, because of the decreasing competitiveness and relative power differences inherent to highly unequal populations. This finding suggests that previous research, which treats this relationship as linear, may be misinterpreting the effect of increasing income inequality on political participation, especially for more economically homogeneous populations.

3.2 Introduction

Most objective economic measures have indicated a significant increase in income inequality over the last half of the 20th Century (Piketty and Saez 2014). In December 2013, President Barack Obama called economic inequality "the defining challenge of our time" and indicated that the political consequences of letting economic inequality increase unfettered would produce political consequences, which could be detrimental to American democracy. Income inequality, or the disparity between individuals at different places within the economic spectrum, has been exacerbated during the post-2008 Great Recession (Cynamon and Fazzari 2015). The Gini coefficient, an often-used measure of income inequality, has increased from a low of .314 in 1967 to .406 in 2017[14], an increase of almost 30%. In terms of real income disparity, the top one percent of income earners in 2016 made 22.5 percent of all pre-tax income, up from 8.9 percent in 1976 and marking its highest level in almost 100 years (Piketty and Saez 2003). After adjusting for inflation, median household incomes have declined almost ten percent since 2000 (US Census Bureau 2013).

The rise in income inequality, associated with an increase in the economic disparity between the haves and the have-nots, has corresponded to a dramatic decrease in political participation, especially among the have-nots. The 2004 American Political Science Association's taskforce on rising income inequality postulated that American progress towards realizing an ideal of truly representative government may be in digress. They concluded that the voices of Americans are being raised and heard

[14] Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments.

unequally (Jacobs et al. 2004). In fact, class bias has been persistent, and increasing, in American politics, where voter participation has been low and increasingly biased toward the wealthy (Solt 2010; Wichowsky 2012; Franko, Kelly, and Witko 2016). The goal of this study is to interpret several existing, and at times conflicting, theories of income inequality and political participation, and show how each of the existing models can simultaneously co-exist in a logically consistent manner. This research will show that when the three theoretical mechanisms that link income inequality to political participation are examined together, income inequality has an inverted U shaped relationship to political participation, not a linear one as previous research has assumed.

In section three, this paper addresses three theoretical models that have been used to explain the relationship between income inequality and political participation, and highlights the individual shortcomings for each model. Section four develops a new competition theory of participation that integrates aspects of all three theoretical models and shows how income inequality has a non-linear relationship with political participation. Section five develops a modeling structure to test the theory and explain the data used. Section six presents the results and interpretation. Section seven offers concluding remarks and insights.

3.3 Previous Models of Income Inequality and Participation

Previous scholars have identified three potential models for the interaction of rising income inequality and participation; relative power theory, conflict theory, and

resource theory. Each of these models stipulates a slightly different expected relationship.

3.3.1 Relative Power Theory

Relative power theory states that income inequality should decrease the levels of political participation generally, but that effect should be greatest for the poor due to an unequal distribution of power. As a population becomes more economically disparate, those on the higher end of the economic spectrum have more power, relative to those on the bottom, and use it for electoral success. Since power is unevenly distributed, participation decreases due to noncompetitive elections (Hill and Leighley 1992)[15]. Researchers, using aggregated measures of income inequality, have shown that overall levels of participation decrease in populations with higher levels of income inequality (Brady 2004; Solt 2008).

Participation is directly affected by the perceived responsiveness of representatives to their constituents, when senators are more responsive to constituents with higher incomes (Goodin and Dryzek 1980), political efficacy should decline among poorer members of the population leading to decreases in participation. This research goes beyond a simple "access equals influence" model by showing that increasing income inequality decreases the participation of the lowest income strata by diminishing perceived returns from participation (Wichowsky 2012). Gilens (2005) finds that the representatives' usually favor the preferences of the wealthier classes, although he

[15] See also Dye (1969), Bardhan and Mookherjee (2000) and Wachowsky (2012) who show that an increase in income inequality is associated with a reduction in party competition, voter participation, and an increase in income bias as parties are less able to mobilize less advantaged citizens.

notes that different economic classes do not always disagree about policy preferences. However, when they do, the preferences of representatives' favor the wealthier classes.

Income inequality decreases political participation by reducing the amount of politically relevant resources available to the majority of constituents (Brady 2004). Additionally, income bias in the electorate can lead to even greater levels of income inequality (Avery 2016; Franko et al. 2016). When members of higher economic classes participate disproportionately more in politics than members of lower classes, rates of income inequality increase. This leads to a systematic collection of politically relevant resources at the top of the income spectrum, and political power becomes unevenly distributed. When resources are concentrated among fewer people, the participatory abilities of the majority are affected (Goodin and Dryzek 1980). Though this theory contends that increasing income inequality decreases overall levels of political participation, individuals with higher incomes are affected less than those in the lowest income brackets.

Relative power theory is limited because the theorized causal mechanism, unequal distribution of power, does not lend itself to direct empirical testing. Researchers have tested this theory using proxy variables such as feelings of efficacy (Goodin and Dryzek 1980), or political resources (Brady 2004), yet this theory appears to be an *ex post facto* explanation as to why rising income inequality decreases political participation. The problem arising from this theoretical frame is that the causal mechanism remains ambiguous.

3.3.2 Conflict Theory

Conflict theory contends that income inequality should increase levels of political participation for all income groups, as people compete for the control of government resources. When income inequality increases, the economic preferences of the rich and the poor diverge, and involvement in government becomes a more attractive means to improve one's economic circumstances (Meltzer and Richards 1981; Hayes 2014; Franko 2016). Because the economic incentives to participation becomes greater when inequality increases, both the well-off and less well-off will increase mobilization efforts to seek their preferred policies (Page and Jacobs 2009), which increases participation. Conflict theory claims that the competition over the available resources should increase overall participation rates both from the bottom-up as well as the top-down.

When there is greater demand for control over government benefits, political participation increases as a result of increased political competition (Kelly 2009; Neckerman and Torche 2007,). Competition often increases as the relative difference in incomes between the poor and the well-off increases because both the nature and type of benefits desired by different classes become more opposed (Page and Jacobs 2009). Wealthier Americans show substantially lower levels of support for policies designed to reduce income inequality, or its substantial effects (Gilens 2009; Enns and Wlezien 2011; McCarty, Poole, and Rosenthal 2016). For instance, as income inequality increases, voters below the mean income should show greater support for redistribution, such as tax and transfer policies or supply side economic policies like increasing the top marginal and corporate tax rates. Thus, as income inequality increases so will participation.

The limitation to conflict theory is that empirical testing has yet to find a significant increase in participation as a result of increased income inequality, and thus has yet to show evidence for this theoretical approach. There are a few potential causes for this. First, conflict theory is predicated on the idea that increasing inequality will cause a divergence in class preferences where the haves want something starkly different from the have-nots. However, even though Americans are aware of rising inequality, no great divergence in preferences has been identified (Bartels 2005; McCall 2013). Even though we should see an increase in support for redistribution policies, such as increased welfare, social spending, or minimum wage laws because of increased inequality, we do not (McCall 2013). This is potentially the case of individuals largely being unable to connect inequality and public policy (Bartels 2005), or inequality not being a concern large enough to change values like individualism that underlie individuals' preferences for redistribution (Bobo 1991; Feldman 1999; Page and Jacobs 2009). Second, it is possible that increasing inequality increases turnout at the ends of the economic spectrum and decreases turnout in the middle (Stockemer and Parent 2014). Since the trade-offs between lower taxes and more redistribution would be relatively inconsequential to the middle of the economic distribution a non-linear u shaped participation curve could develop. Traditional linear testing would treat this non-linear relationship as a non-relationship.

Additionally, conflict theory is conditioned on class interaction. Members of different socioeconomic classes must feel that they are in direct competition with each other over policy outcomes and benefits. However, increasing income inequality has also lead to increasing income segregation. Economic segregation, the level of

interaction between individuals of different classes, has continued to increase over the last few decades, which may mitigate potential changes in voter turnout (Galbraith and Hale 2008). When members of different classes stay segregated, they lack the experiential knowledge that enables them to identify conflicts within the political realm.

3.3.3 Resource Theory

Resource theory contends that income inequality affects levels of political participation by altering the levels of politically relevant resources available to the masses, such as political interest and knowledge, financial resources, and time. This produces an income bias in the electorate, where those with greater levels of resources participate to a greater degree than poorer citizens. The decline in participation is based on the poorest citizen's relative lack of politically relevant resources, which are required for participation (Solt 2010). A relative resource advantage, as measured by unemployment, poverty, and financial well-being, decreased voter turnout for the poor (Rosenstone 1982; Lim and Sander 2012). More recent research has attributed this effect to a person's placement within an economic stratum, producing an income bias in the electorate (Bartels 2008; Leighley and Nagler 2013), which has a crosscutting effect on turnout (Verba et al. 1995; Solt 2010; Avery 2015).

Direct empirical testing of this hypothesis has shown that increased income inequality does produce an income bias in the electorate and citizens in the highest income quintile are much more likely to vote than those in the lowest quintile (Solt 2010; Leighley and Nagler 2013). These researchers conclude that it is an inability, or lack of desire, to pay the real costs, time and money, inherent to participation, and thus the

poorer classes participate less. Researchers have also focused on how rising income inequality has raised the relative costs to participation (Solt 2010; Soss and Jacobs 2009), as well as how rising inequality can raise the psychological cost to participation (Uslaner and Brown. 2005).

3.4 A Competition Theory of Participation

The previous models, which explain the relationship between income inequality and participation, specify monotonic relationships, or in some cases interactive ones. However, there is some reason to believe that the effect that changes in income inequality exert on rates of political participation are contingent on both the size of the change as well as the current levels of inequality affecting the population under change. The primary contribution of this paper is the development of a theory for the relationship between income inequality and participation based on political competition, which overcomes the shortcoming of previous models. The competition model theorizes a curvilinear relationship between inequality and participation, as political competition is strongest in populations with middling levels of inequality, and lower in the most economically homogeneous. Previous research of the relationship between income inequality and political participation (Solt 2008; Kelly and Witko 2012) attempts to validate a model of participation which treats the effect of increasing inequality as linear, where a change in inequality at any point in the inequality spectrum would produce the same expected change in participation. Researchers employing previous theories treat the participatory response of populations with near income equality encountering an increase in inequality the same as highly unequal populations experiencing the same

change, yet there are reasons to believe that this is not the case. Competition theory indicates that changes in income inequality should produce differing effects on participation based on the pre-existing levels of inequality in the population under change, as well as the magnitude of the change in inequality. Therefore, the effect of income inequality on participation is a nonlinear effect, not a linear one as previously theorized. Competition theory is predicated on the effect that changes in inequality has on the distribution of political power, preferences, and resources. This produces three independent assumptions concerning the relationship, which is explained below.

3.4.1 Competition Theory

Competition theory maintains that changes in inequality change the distribution of political power of individuals at different points on the economic spectrum. This change in the distribution of political power is grounded in the idea that government is more responsive to the preferences of individuals higher in the economic distribution. Wealthier individual have greater levels of political knowledge (Bartels 2002), better economic information (Gilens 2005), and greater availability of politically relevant resources, which enable elected representatives to win elections (Mayhew 1974). In fact, previous researchers have found that elected representatives are much more responsive to the policy preferences of the wealthy than to the poor or even middle-class (Bartels 2002; Gilens 2005, 2009; Jacobs and Page 2005; Flavin 2012).

Competition theory differs from relative power theory, as relative power theory assumes that changes in inequality at all levels of existing inequality should produce equivalent decreases in participation, indifferent to the baseline inequality. However, a

small change in income inequality in populations with near income equality would have little effect since each individual would likely retain similar levels of relative political power, whether high or low. Likewise, a small change in income inequality in highly unequal populations would have a similarly small effect on population because political power is already highly divided. Therefore, there must be some point in the income inequality spectrum where the balance of relative power shifts to the point where the relative power of the haves is distinguishable from the power of the have-nots. It is at this point in the spectrum that a small change in income inequality could shift relative political power and produce a noticeable change in participation.

Given that the change in participation produced by changing inequality is contingent on the baseline levels of inequality, it is clear that a linear monotonic relationship between income inequality and political participation is unjustified. There are points within the range of potential levels of income inequality where a small change in income inequality produces much larger expected changes to participation than at other potential levels of income inequality. This leads to the first assumption:

> *Assumption 1: The relationship between income inequality and participation is non-linear.*

Competition theory asserts that populations with different income distributions will have different distributions of preferences and differing levels of competition over those preferences. Where populations are economically homogeneous, there should be very little preference differences, and very little political competition. At higher levels of inequality, there will be greater differences in political preferences, greater levels of political competition, and greater levels of participation. However, competition theory differs from previous models by focusing on the distribution of individuals at different

economic positions, not the preferences of individuals at different levels of income inequality. Although previous research has failed to show that changing inequality can affect the preferences of individuals (Bartels 2005; McCall 2013), inequality researchers have overlooked the effect of inequality in changing the distribution of individuals whose preferences are in-line with their economic position.

At higher levels of inequality, the haves become fewer, with more individual resources, while the have-nots become greater, with less individual resources, and this produces an income bias in preferences. The formation of groups with different preferences along economic lines produces an incentive to mobilize co-economic constituents to achieve political success. As inequality increases, political preferences start to diverge, the proportions of the population at either side of the economic spectrum changes, which leads to greater political conflict, which spurs greater mobilization efforts and eventually greater participation. Researchers testing the assumption that individuals at different economic positions have different preferences find that the preferences of members of lower economic classes differ significantly from those of high and middle-class Americans (Enns and Wlezien 2011; Avery 2015). Additionally, people at the top of the income spectrum have drastically different opinions regarding state intervention to redistribute incomes than people at the bottom of the income spectrum (Gilens 2009; Franko, Tolbert and Witko 2013; McCall 2013). The effects that inequality has on participation is not driven by an increase in the ideological space between two preference positions, but the size of the populations that hold differing preferences. As individuals almost never have a choice from a full preference

spectrum, the scope of the difference in preferences is secondary to the distribution of those preferences.

If we assume a normal distribution in preferences, where members of a population are clustered around the median, which has been a long-accepted theorem in political science (Hotelling 1929; Downs 1957), and has consistently held up to empirical testing (Holcome 1980; Congleton 2004), then each side in a political competition will seek to occupy the preference space as close to the median as possible to increase their coalition size. However, in populations with higher levels of inequality, the distribution of preferences skews towards the preferences of individuals at the lower end of the economic spectrum. This change produces greater incentive for those individuals to mobilize to seek their political preferences. In response, those with preferences aligning to the upper end of the income distribution should respond in turn by increasing their mobilization efforts to counteract the additional mobilization efforts. However, this effect should be strongest where changes in inequality have the ability to change the distribution of preferences enough to produce political competition. It is in the middle of the income inequality spectrum where an increase in inequality could shift the relative power of a minority to a majority position, producing the greatest effect on political participation.

As an example, in populations with near equality of incomes, most if not all of the individuals should hold similar preferences and the size of the group with that preference would be the majority. A modest increase in income inequality will produce a deviation of preferences, and move some individuals from the majority to the minority opinion. However, the relative power of the majority should remain unaffected, making

mobilization efforts of the majority less important, and the effect on participation should be small. It is only once preferences have deviated to the point that the percentage of the population holding differing political preferences is equivalent, somewhere in the middle of the income inequality spectrum, where mobilization will have its greatest influence, political competition will be strongest, and where the largest expected increase in participation will result from increasing inequality. However, the relationship between levels of inequality and participation should not be monotonic. In populations with high levels of income inequality, the separation of individuals between different preference groups is already well defined, with both sides engaged in mobilization efforts to seek political success. With high levels of income inequality, a modest increase in income inequality will not greatly affect mobilization efforts, as they will already be in full swing, and the effect on participation will be small. Preferences will be most evenly distributed somewhere in the middle of the income inequality distribution, and this is where political competition will exert the largest effect on participation rates. Given the previous assumption about a non-monotonic relationship, the expected effect of income inequality on participation should be non-linear and greatest in the middle of the income inequality spectrum, which leads to the second assumption.

Assumption 2: Neighborhoods with middling levels of inequality participate the most.

The previous assumptions start to develop the relationship between income inequality and political participation, yet the theory is incomplete because it is yet able to specify a functional form of the relationship between income inequality and political participation. Income inequality affects the politically relevant resources that are available to the citizenry. As inequality increases, the percentage of the population that

lacks politically relevant resources increases, and an increasing segment of the population is no longer able to afford the costs of political participation. The simple causal logic behind this theory exploits a characteristic of income inequality; it is often the case that increases in income inequality accompany increases in poverty. The basic voting calculus (Riker and Ordeshook 1968) indicates that the likelihood of voting (V) is equal to the benefits (B) derived from voting times the probability that by voting, the outcome will be affected (P), minus the costs of voting (C):

$$R = (BP) – C$$

As long as the benefits outweigh the costs, after accounting for the likelihood of affecting the election, a vote will take place. However, some are unable to afford the costs of voting. This may be in time, money, or information and these individuals will be unable to vote irrespective of the potential benefits. This is the case even if the cost of voting is unresponsive to the levels of inequality, which there is reason to believe is not the case. As inequality increases, the relative political power of individuals higher in the economic spectrum increases, which increases their collective political power. This increase in collective political power decreases the political power of individuals at lower levels on the economic spectrum, and makes participation more costly as they have to compete with wealthier classes for representation. However, as inequality increases, the expected benefits of participation will also increase. As the distribution of incomes become more unequal, there are greater potential benefits for a larger segment of the population in terms of redistributive policies. These effects are compounded by the increasing proportion of the population at lower levels on the economic spectrum when inequality is high, indicating that the proportion of low SES individuals will increase

when inequality goes up. The likelihood that a person votes when they are unable to afford the costs of voting is low, and so when the percentage of individuals in a population with low SES increases, voting will decline.

Although income inequality does not fully specify the socioeconomic composition of a population directly, we can make some assumptions, especially at higher levels of income inequality. On the one-hand, low levels of income inequality provide very little information concerning the socioeconomic status of members of the population. For instance, the Gini coefficient for census block-groups in Beverly Hills California, one of its wealthier neighborhoods, are similar to that of block-groups in south-central Los Angeles, one of California's poorest areas. This is due to the socioeconomic homogeneity of the population. On the other hand, high levels of income inequality do provide information concerning the socioeconomic status of the population. At the highest levels of inequality, the population would be defined by a very few number of very wealthy individuals and large numbers of very poor individuals. Therefore, the likelihood that a person is of low socioeconomic status increases, in the aggregate, as income inequality increases. Therefore, the probability that an individual is unable to pay the costs of participation increases as income inequality increases, and as income inequality increases, political participation should decrease. This leads to the third assumption:

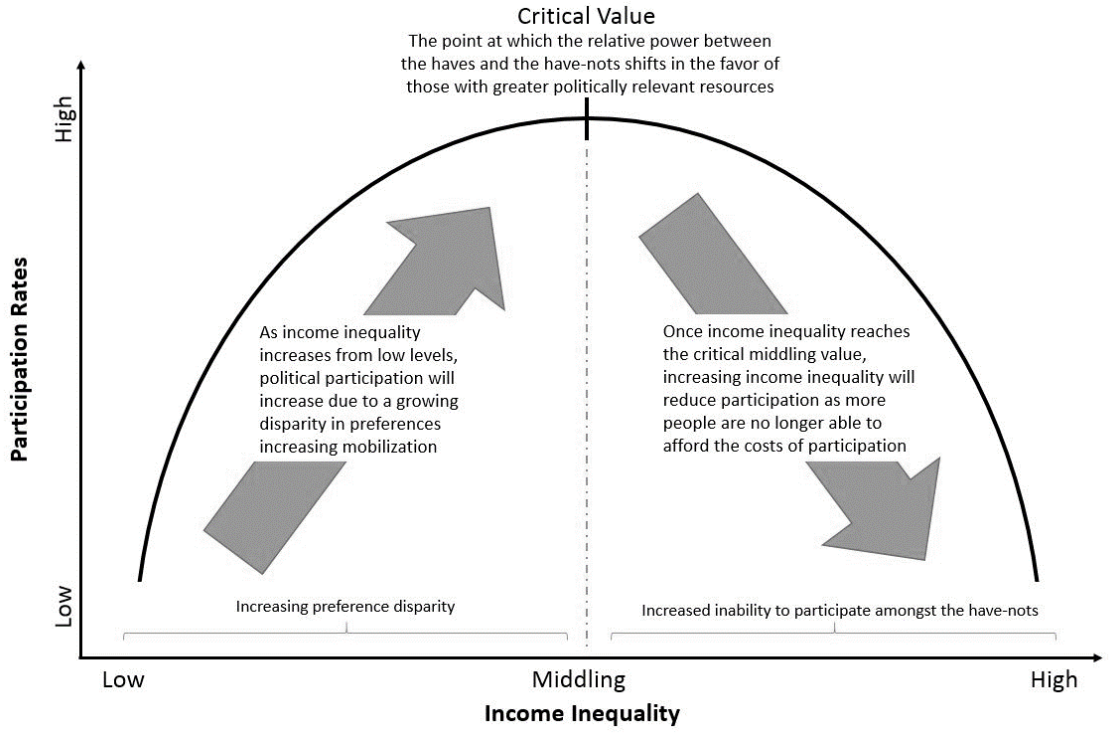
Assumption 3: When income inequality is highest, the least participate.

3.4.2 Hypotheses

Given the three assumptions, participation should increase as inequality

increases, as it drives the proportion of the population holding divergent preferences towards parity. This parity in preferences increases political competition, which in turn drives mobilization and participation. As competition increases with an increase in inequality, the costs of participation also increase, due to the resulting imbalance of power between the rich and the poor and the increasing proportion of the population that can no longer afford to participate. Once inequality hits a critical point, the rising costs to participation leads to fewer people at the bottom of the income distribution participating, decreases political competition, decreased mobilization, which further decreases participation. As populations experience high levels of participation, the mobilization effects will give way to differences in relative power and resources, decreasing participation, and participation will reach its lowest rates. This theory is presented graphically in Figure 3.1.

Figure 3.1. Graphical Representation of Expected Effect of Increasing Income Inequality on Participation



This theory produces three testable hypotheses:

Hypothesis 3.1: *Income inequality will have a curvilinear effect on political participation*

Hypothesis 3.2: *As income inequality increases from its lowest levels, political participation will increase*

Hypothesis 3.3: *Once income inequality reaches a critical value, increases in inequality will produce decreases in political participation*

3.5 Data and Methods

To test these hypotheses I employ election and demographic data at the census block-group level in the state of California from 1992-2012. This method produces between 21,000 and 22,000 observations per year, which is much larger than previous studies. Research at the census tract level will allow for a greater variation of political and socioeconomic contexts, and allow this research to control for the spatial nature of voting behavior, as previous studies have found high levels of global and local spatial autocorrelation in regional income dispersions (Rey and Montouri 1999). Thus, this research will employ spatial regression analysis. The information on economic makeup at the census block level is available through the California Secretary of State's office in concert with the U.S. Census Bureau and California Department of State.

3.5.1 Data

The primary dependent variable for participation is census block voter participation. Previous research has attempted to examine the effects of income inequality on multiple measures of participation, however only voting participation is available at the micro-level employed in this study. This analysis will focus on the percentage of the census block that voted, and will remain indifferent to the direction of

their vote. Though examining the way that individuals in these blocks vote may provide meaningful insights to the existing literature, these insights will be left for future researchers to identify. Voter turnout is measured as the number of individuals in the census block-group that cast a vote for the proposition divided by the voting eligible population (VEP). Previous researchers who focus on voting rates have disagreed as to whether examining the percentage of the voting age population (VAP) or VEP is most appropriate (McDonald and Popkin 2001), but previous research has indicated that focusing on the VEP is the most appropriate measure for state-level turnout (Holbrook and Heidbreder 2010).

The primary independent variable is a measure of income inequality at the community level. There are some reasons to believe that measuring inequality at the community level is the most appropriate measure of inequality as it most closely mirrors the levels of inequality actually experienced by individuals. A Gini coefficient for income inequality is generated from income responses to the American community, aggregated to the census-block level, for the respective years, producing a Gini coefficient for each block-group-year. The Gini coefficient, an often used measure of income inequality, which is "exactly one half of the relative mean difference, which is defined as the arithmetic average of the absolute values of differences between all pairs of incomes" (Sen 1997, 30-31).[16] A value of 1 would mean that one person made all of the income and all others earned nothing, where a Gini value of zero would indicate that all

[16] The Gini coefficient can be generated for any population of income values. The Gini coefficient is expressed as a numerical value, between 0 and 1, corresponding to a Lorenz curve, where each income is ranked from lowest to highest along the horizontal axis and the percentage of the whole economic stratum accumulated by that segment of the population along the vertical axis.

members of the population made exactly the same amount. Mathematically the Gini coefficient can be derived from the formula:

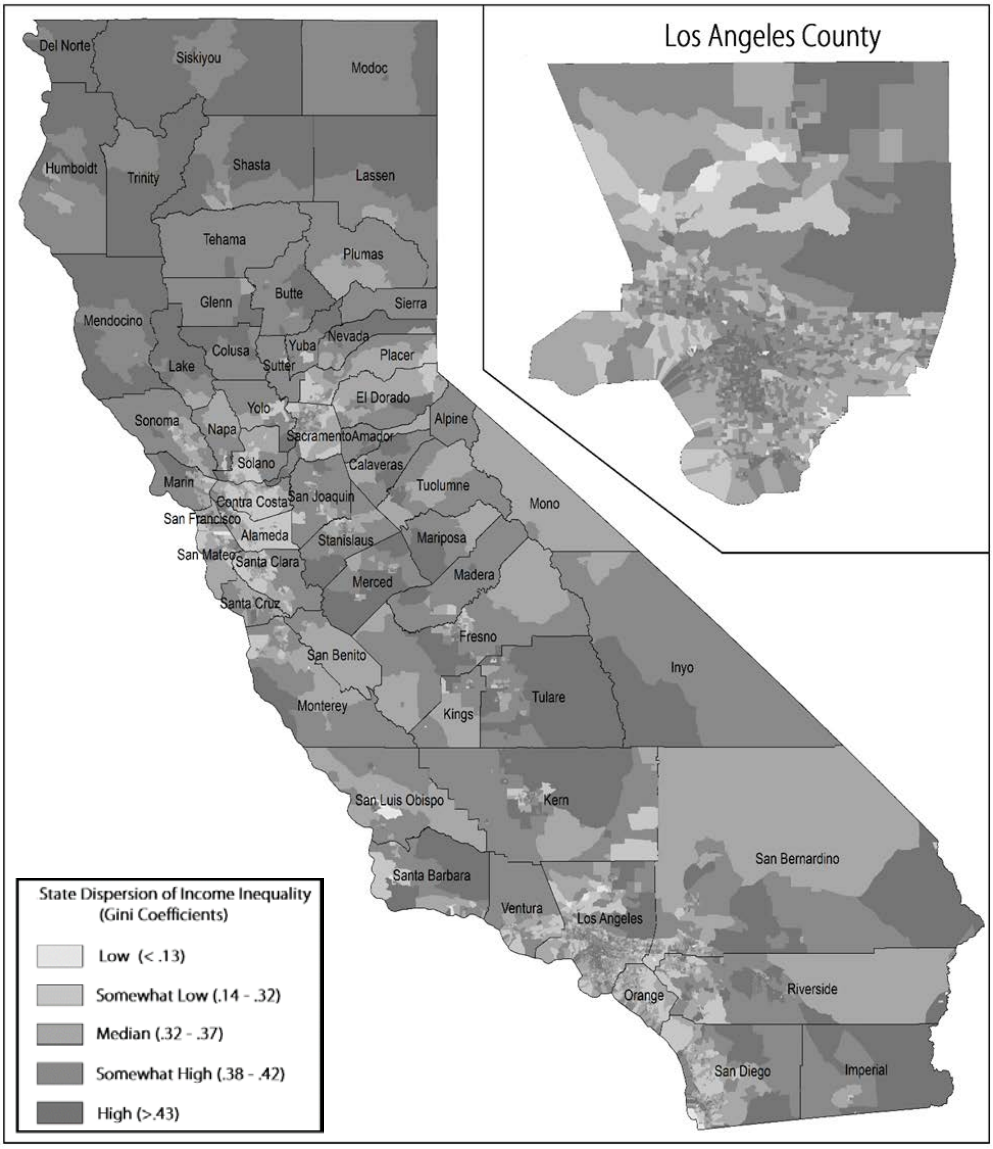
$$G = (1/2n^2\mu)\sum_{i=1}^{n}\sum_{j=1}^{n}|y_i - y_j|$$

Where G is the Gini coefficient, n is the population size, μ is the population variance, yi is the specific income and yj is all other incomes. The Gini coefficient has a few beneficial attributes; it is decomposable, it is independent of income scale and population size, and is bound between zero and one (Cowell 2010). Over the sample, the Gini coefficient ranges from .204 to .670 with a mean of .362 and a standard deviation of .069. The size of the population for the block-groups ranges from 4 to 39,248 with a mean of 1550 and a standard deviation of 930. Census block-group measures of income inequality for California are mapped in Figure 3.2.

The model includes a number of control variables measured at the block-group level. These controls include median family income, college graduation rates, gender composition, ethnic composition, difference in the two-party vote share, and ethnic fractionalization. Socioeconomic status (SES) is a known determinant of voting behavior (Brady, Verba, and Schlozman 1995), since it can increase resources necessary to vote such as time, money, and civic skills. Previous studies have used income and education as a proxy for socioeconomic status. This study follows previous research and employs both median family income and the percentage of residents 25 or older who are college graduates as a proxy for SES. Both of these measures come from the US Census Bureau's American Community Survey. To control for demographic features, the analysis controls for the percentage of the population that are female and the percentage of the population which identify as Anglo, African-American, Latino/a, and

other, with percentage white being the omitted category. This data is from the US Census Bureau.

Figure 3.2. Graphical Representation of the Spatial Dispersion of Income Inequality in California (2000)



Intergroup conflict, rather than economic conflict, can increase political participation (Tolbert and Grummel 2003), especially for Anglos, so this study employs a Herfindahl–Hirschman Index (HHI) of racial concentration for each block-group. The HHI is a sum of the squared percentage of each racial group that makes up the

population total, producing a 0-1 index of the concentration of a single racial/ethnic group relative to all others:

$$HHI = \sum_{i=1}^{n} {p_i}^2$$

where p_i is the fractional share of racial/ethic group *i* and *n* is the total number of racial/ethnic groups within the population. The HHI is a 0-1 index indicating the concentration of a population on a single firm, in this case a political party. A value of one indicates that all residents identify as the same racial/ethnic group, and as the value decreases to zero, the degree of racial/ethnic dispersion increases. This is a common metric used to measure the degree of ethnic homogeneity/ heterogeneity at the nation state level (see Anderson and Paskeviciute 1997).

One of the most important factors in determining voter turnout is the competitiveness of the election (Geys 2006). When elections are closer, mobilization efforts often increase, as each side sees their ability to win increase. To control for electoral competitiveness, the absolute difference in two-party vote share is included. Smaller values indicate closer elections, and increased voter turnout is expected.

There are two distinct forms of spatial autoregressive models, error dependence and lag dependence, and the specific model used depends on the nature of the spatial dependence. Starting with the OLS model:

$$y = X\beta + \varepsilon$$

where y is a N × 1 vector of observations on the dependent variable, X is a N × K matrix of observations on K independent variables, β is a K × 1 vector of regression coefficients, and ε is a N × 1 vector of errors assumed to be normally and independently distributed (Anselin and Rey 1991). In the spatial error model the errors can no longer

be assumed independent and identically distributed and the regression model takes the following form

$$y = X\beta + \lambda W\varepsilon + \tau$$

where λ is the spatial autoregression coefficient, W is a N × N matrix of spatial weights representing the geography of the observational units, and τ is a N × 1 vector of errors assumed to possess the usual properties. In this form, spatial dependence influences the error term only and it has been shown to influence the power of tests for heteroscedasticity and the structural stability of regression coefficients (Anselin and Rey 1991).

In the spatial lag model, the standard regression equation may be rewritten as

$$y = \gamma Wy + X\beta + \tau$$

where γ is the spatial autoregression coefficient. In this form, the value of the dependent variable at a particular location is jointly determined by its values at other locations and OLS estimation is no longer consistent (Anselin and Rey 1991). For both the lag and error models, the regression equation is solved using maximum likelihood estimation (Anselin and Getis 1992).

3.6 Results and Interpretation

The results of the spatial regression models[17] for all elections between 1992 and 2012 are presented in Table 3.1 and indicate, as theorized, the relationship between income inequality and participation does not appear to be linear. The results from the

[17] The results are presented using a spatial lag model. As a robustness check, the models were run using both OLS and a spatial error model. The results from OLS and a spatial error model are presented in Appendices E and F respectively and the results are similar to the spatial lag models.

linear relationship do not reach traditional levels of significance; however, the curvilinear model does indicate a strong and substantive relationship.

Table 3.1. Effects of Income Inequality on Political Participation (Lag Model)

	(Linear)		*(Curvilinear)*	
	Coef.	(Std. Err.)	Coef.	(Std. Err.)
Vote $\%_{t-1}$	.981***	(.034)	.987***	(.033)
Gini Coefficient	.018	(.024)	.701***	(.100)
Gini Coefficient^2			-.945***	(.122)
% College Educated	.004***	(.001)	.005***	(.001)
% Female	.001***	(.000)	.001***	(.000)
Median Family Income	.000	(.000)	.000	(.000)
% African American	-.001***	(.000)	-.001**	(.000)
% Latina/o	-.002***	(.000)	-.002***	(.000)
% Other Race/Ethnicity	-.004*	(.002)	-.004*	(.002)
2 Party Vote Share	.011	(.017)	.013	(.016)
Ethnic Fractionalization	.099***	(.013)	.098***	(.013)
Constant	.384***	(.027)	.270***	(.025)
N	419,096		419,096	
Elections	21		21	
Adj R-squared	.165		.167	

Dependent Variable: Census Block Voting Percentage. All regressions include a lagged dependent variable and a dummy variable for election type.
Significance level: * p<.05; ** p<.01; *** p<.001

The positive and statistically significant coefficients for the Gini coefficient, in the curvilinear model, indicate that as income inequality increases, so does political participation. When levels of income inequality increase from low levels, the rate of political participation also increases. Though the increased level of participation, as an effect of increasing income inequality, varies by election, the average expected rate of increase is about 3.5% per standard deviation increase in income inequality. Increasing income inequality appears to have a greater influence on participation in general and

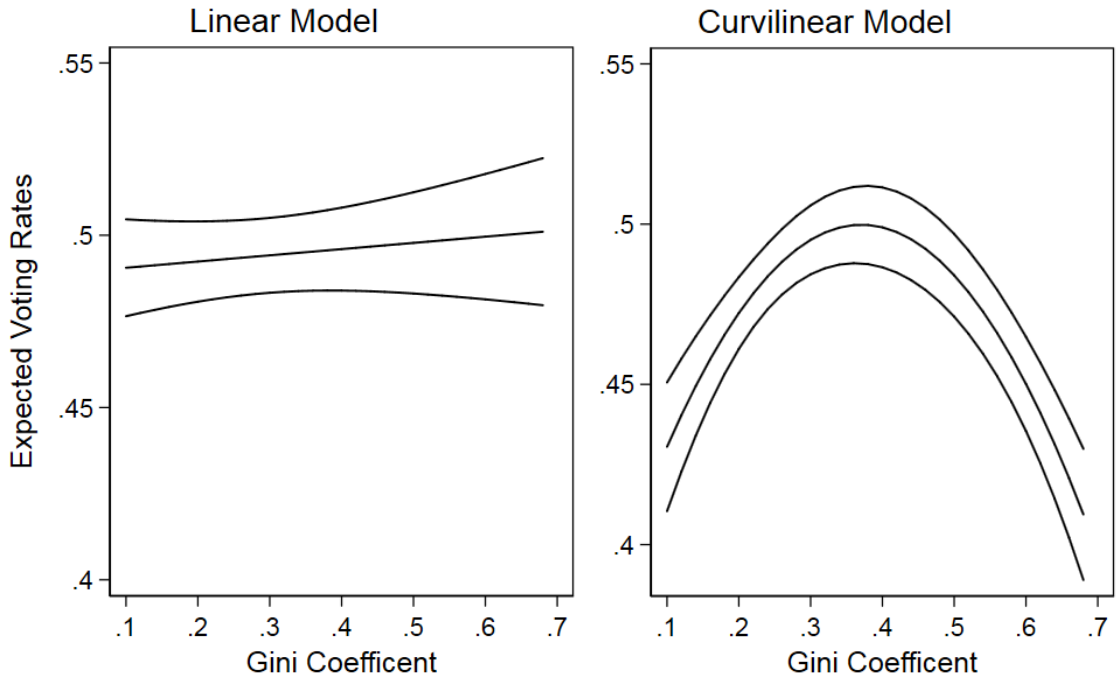
special elections, with a smaller effect for primary elections[18]. The negative and statistically significant coefficient for the squared term, in the curvilinear model, indicate that income inequality has a curvilinear relationship to political participation, and as income inequality reaches higher rates, the effect becomes negative. This finding provides support for Hypothesis 1. Due to the difficulty with interpreting the effects of an interaction based on the coefficients alone, the interactive effect is graphed in Figure 3.3.

Figure 3.3 graphs the interactive effect of income inequality on political participation. As expected, the interactive effect indicates that the expected rates of participation increase as income inequality increases from low to middling levels. The largest expected increases in participation appear as income inequality begins to increase from the lowest levels, which provides support for Hypothesis 2. However, once income inequality reaches middling levels, the effect of additional increases on income inequality become negative. The expected rate of participatory decline appears as inequality reaches its highest levels, which provides support for Hypothesis 3. For the majority of elections, the lowest rates of participation are expected at the lowest and highest levels of income inequality. These findings indicate that as income inequality increases from low levels, differences in preferences form over the appropriate policy decisions and allocation of benefits, generating conflict that leads to additional participation. Once income inequality reaches middling levels, the relative power of the haves increases over the have-nots and participation declines. As income inequality

[18] This is consistent with literature on primary elections (see Polsby and Wildavsky 1978; Norrander 1989; Rapoport 1994 among others) where participation in primary elections is driven by political interest, especially among extreme partisans, and not by economic factors.

increases towards its highest levels, fewer people will be able to pay the costs of participation, and participation declines. These findings indicate that any study of the effects of income inequality on political participation needs to account for the all three models of political participation, and its curvilinear relationship with income inequality.

Figure 3.3. Effects of Increasing Income Inequality on Political Participation
(All elections 1992-2012)



A number of control variables reach statistical significance, and provides additional support for research on the effects on economic, political, and demographic characteristics on participation rates. A number of them deserve recognition. In the majority of the models, the percentage of college graduates has a positive effect on participation, indicating that a more educated population participates more. I find differing effect of the ethnic categories on participation, indicating that these populations may be mobilized at different rates depending on the election, and the particular candidates or policies being voted on. Additionally, political competitiveness also shows

mixed results, indicating that how close an election is may not always produce greater levels of participation. Finally, the ethnic fractionalization variable is almost always positive, which provides support for the idea that populations with greater ethnic diversity participate at greater levels.

3.7 Conclusion

This research indicates that increasing income inequality has a curvilinear relationship with political participation, where the effect of inequality is dependent on both the magnitude of change and the pre-existing levels of inequality in the population experiencing a change in inequality. Previous researchers have examined the relationship between income inequality and political participation motivated by a single theoretical model. Employing the relative power model, Goodin and Dryzek (1980) and Brady (2004) find that increasing income inequality reduces political participation by reducing the relative resources or political efficacy of individuals living in highly unequal economic contexts. Kelly and Witko (2012), and Stockemer and Parent (2014) find limited support for the conflict theory, indicating that under limited circumstances income inequality can increase political participation. Finally, Solt (2010), and Soss and Jacobs (2009) indicate that as income inequality increases, politically relevant resources decline, especially amongst the poorest members of a population. However, no previous study was able to produce results that explained the relationship between income inequality and political participation under all circumstances. The logic presented in this study is that research on the relationship between income inequality and political participation must account for the effect of income inequality on political

participation, which is dependent on both the size of the change and the pre-existing levels of inequality in a population.

One of the implications of this research is that individuals living in the highest inequality context may no longer have the ability to pursue an approach to reducing income inequality that depends on signaling policy makers through democratic action. At the highest levels of inequality, participation reaches its lowest level, and is increasingly biased towards the wealthy. This class-bias leads to a less equitable balance of power between the haves and the have-nots, affects the substance of economic policy, has real and lasting effects on distributional outcomes, and can make inequality even worse (Franko, Kelly, and Witko 2016). The result of this cyclical process is, as Bénabou (2011) points out, high inequality populations that reinforce higher levels of inequality.

One of the limitations of this paper is that it examines only a single state, and only focuses on a single measure of participation. Although, as indicated above, there is good reason to expect that California is a good proxy for the rest of the nation as it includes populations that exist throughout the United States. This research represents the first study of its kind to examine the relationship between income inequality and political participation at such a fine level of geography, while accounting for the spatial components of both income inequality and political participation. Though this study does not examine vote choice or intention, it paves the way for future

CHAPTER 4

FROM THE POORHOUSE TO THE VOTING BOOTH: THE EFFECT OF ECONOMIC INEQUALITY AND RACE OR ETHNICITY ON VOTING

4.1 Chapter Abstract

Recent research has shown that increasing economic inequality in America has led to decreasing levels of political participation in the form of voting. Additionally, reduced levels of voting have occurred unevenly by class, with the largest decreases coming from the poor and middle class. However, these studies have treated all Americans the same while not accounting for the possibility of different responses to increasing income inequality from different racial and ethnic groups. Examining neighborhood voting rates, and levels of income inequality, from 1992 to 2012, and utilizing spatial regression modeling, this paper shows that different racial/ethnic groups respond to changing levels of income inequality differently. Only the poor Anglo majority responds by becoming increasingly disenfranchised while African Americans, and to a lesser extent Latina/os, respond with increasing participation. This finding emphasizes the importance of the interaction between race, ethnicity, and economic inequality and suggests that the lack of social capital within the poor Anglo community is driving the lower levels of voter turnout identified in previous research.

4.2 Introduction

Rising income inequality has been one of the defining trends of the past generation, yet we know little about the impact that it has on the participatory tendencies of most Americans. Previous researchers have asserted that as economic

inequality increases, the conflict inherent in the clash between income groups should increase people's engagement in politics (Meltzer and Richards 1981; Oliver 2001). As the classes move farther apart economically, class preferences over the allocation of governmental resources will also diverge. This divide in preferences should lead to higher rates of contentious debate between the classes and fuel mobilization efforts leading to higher turnout. The result of this process should be increased participation among the wealthy and the poor. However, recent scholarship has found that increased inequality appears to depresses turnout, especially among the poor (Bartels 2009; Brady 2004; Gilens 2005; Solt 2010), raised the relative costs to participation (Solt 2008; Solt 2010; Soss and Jacobs 2009), and increased participations' psychological costs (Goodin and Dryzek 1980; Uslaner and Brown 2005). However, previous literature has failed to account for the diverse responses that different racial/ethnic/economic groups have to increasing income inequality.

The poor, especially the poor in populations with greater levels of economic inequality, participate at a much lower rate than do the wealthy. However, there is reason to believe that this finding may not be true for all groups within society. Recent research in social capital indicates that the existence of strong in-group associations, either through a feeling of linked fate or social consciousness, can cause individuals to act on behalf of the improvement of the group (Brehm and Rahn 1997; Mason 1997; La Due Lake and Huckfeldt 1998). If income inequality can depress voter participation and social capital can improve it, this implies that as economic conditions deteriorate for a group, the level of in-group associations will condition the level of response. The reason America has not seen increased participation among the poor, resulting from increasing

inequality, is that being poor is not a social organizational factor strong enough to develop strong group attachments as people do not see a benefit from being a member of this group (Diener and Biswas-Diener 2002). Being poor alone does not produce in-group connectivity or a desire to work for the betterment of the group. However, race and ethnic politics research presents a compelling case that minority groups in America have strong in-group attachments, and often behave in a manner consistent with in-group improvement (Dawson 1994; Sullivan and Winburn 2010). This indicates that minority groups may have the social tools necessary to escape the inequality trap, where poor Anglos may not.

Though this research will not test the effects of social solidarity directly, it will propose it as the theoretical causal mechanism that motivates groups to respond to rising economic inequality differently. The primary reason that this research does not directly test the social connectedness hypothesis is twofold. The first, and simplest, reason is that no sufficient data at the appropriate level of aggregation exists. The second reason is that no consensus on the appropriate measure of social connectedness exists. Early research indicated that African Americans participate in politics at higher rates than Anglos of similar socioeconomic status (Orum 1966; Verba and Nie 1972), and social connectedness within ones ethnic group seemed to give minorities an additional source of motivation to participate in politics (Shingles 1981; Dawson 1994; Shaw et al. 2000). However, a number of more recent studies employing simpler measures of social connectedness concluded that there is no reliable, or reliably positive, correlation between social connectedness and political participation for minorities (Leighley and Vedlitz 1999; Lien 1994; Uhlaner, Cain, and Kiewet 1989;

Verba et al. 1995). The more recent findings can be interpreted as an indication that group solidarity is no longer as strong of a motivator in America as it once was. Some research indicates that this is an effect of race losing its political significance as the social status of many minorities increase (Bobo and Gilliam 1990; Verba et al. 1995). However, others argue that most measures of social connectedness are too endogenous to participation behaviors to appropriately separate (Chong and Rogers 2005; Putnam 1995). Chong and Rodgers (2005) concludes that first, researchers have not taken sufficient account of the heterogeneity of group-centered opinions and feelings of solidarity, in minority populations, which may motivate minority populations to increase political interests and participation in politics; and second, that the relationship between social connectedness and political participation may not be equal across different forms of participation.

Due to the inherent issues with measuring social connectedness, this research plans to test the social connectedness hypotheses through outcomes. Since the theoretical underpinning of this research is that social solidarity increases the chances that a group will act collectively, this research will examine how groups respond differently to their economic and racial context, and how this context affects rates of political participation. This analysis, which examines voting rates for neighborhoods in California, indicates that under increasing inequality context, racial/ethnic minorities respond to increasing economic inequality by increasing their political participation. However, this research indicates that while increasing inequality does increase the participation of poor African American and Latina/os, the levels of participation for those groups never reach levels of participation seen in poor Anglos. While the is not a clear

indication of greater levels of social capital at work, it indicates that something, potentially higher levels of social capital, helps these groups overcome the income gap in participation.

This finding contributes to the extant literature on the participatory effects of economic inequality by questioning the assumption that all groups will respond to the changing economic environment equally. Section three will show how economic inequality has risen in the last few decades, discuss the current theories for how inequality affects participation, and show how some marginalized groups have overcome the barriers to participation that increasing economic inequality has fostered. Section four will draw on the previous literature to produce a theory explaining how different racial/ethnic, and economic minorities respond to changing inequality with different patterns of participation and produce testable hypotheses from this theory. Data and model specification issues will be discussed in section five. Section six presents the results of the analysis. The conclusion and suggestions for further research are presented in section seven.

4.3 Inequality and Participation

4.3.1 Rising Inequality in America

In 2004, an American Political Science Association taskforce on inequality and American democracy found that income inequality in America has been steadily rising since the early 1970s (Jacobs et al. 2004), and this trend has increased during the post-2008 great recession (Jenkins et al. 2012). The Gini coefficient, an often-used measure of income inequality, has been steadily rising in the United States from .362 in 1963, to

.463 in 2013; an increase of almost 30%. In terms of real income disparity, the top 1% of income earners made 23.1% of all pre-tax income in 2015, up from 8.9% in 1976 and its highest level in almost 100 years. After adjusting for inflation, median household incomes have declined almost 10% since 2000 (Piketty and Saez 2003). The real average hourly wage has remained stagnant since the early 1970s. From 1979 to 2015, the top 5% of income earners saw their inflation-adjusted real family income increase 74.9%, while the bottom 20% saw their real family income decrease by 12.1%, and those families between 20% and 40% saw their real family incomes remain unchanged. In terms of wealth, the richest 20% of all families control 88.9 of all of the wealth (Wolf 2012). In terms of consumption inequality, researchers have found that inequalities of consumption have been rising along with inequalities of income (Aguiar and Bils 2015; Fisher et al. 2013) as wealthier individuals have shifted their spending away from necessities and towards luxuries to a greater extent.

Researchers have developed a number of different theoretical models to account for changes in participation as a result of increasing economic inequality. However, researchers have failed to come to a consensus on exactly how inequality has affected participation rates since they have applied these models to the mass public uniformly. This research asserts that groups respond to inequality differently, which explains why a consensus has yet to be reached. The following section will discuss the different theoretical models that have been attributed to the effect of economic inequality on participation.

4.3.2 A Competition Theory of Participation

The effect that income inequality has on political participation is based on the distribution of political power of individuals at different points of the economic spectrum, the difference in preferences that is formed as income inequality increases, and the proportion of the population that can afford to participate in politics. First, the change in the distribution of political power is grounded in the idea that government is more responsive to the preferences of individuals higher in the economic distribution. Wealthier individual have greater levels of political knowledge (Bartels 2002), better economic information (Gilens 2005), and greater availability of politically relevant resources, which enable elected representatives to win elections (Mayhew 1974). As income inequality increases, the relative political power of the wealthy becomes greater. This trend works in unison with the increase in the proportion of the population who is poor produced by increasing inequality. A small change in income inequality in populations with near income equality would have little effect since each individual would likely retain similar levels of relative political power, whether high or low. Likewise, a small change in income inequality in highly unequal populations would have a similarly small effect on population because political power is already highly divided. Therefore, at middling levels of inequality, the increasing disparity in political power will have its largest effect on participation.

Second, groups with different income distributions will have different preferences, and opinions, on issues relating to income inequality. Where populations are economically homogeneous, there will be very little preference differences, and very little political competition. At middling levels of inequality, there will be greater

differences in political preferences, greater levels of political competition, and greater levels of participation. At higher levels of inequality, the haves become fewer, with more individual resources, while the have-nots become greater, with less individual resources, and this produces an income bias in preferences. The formation of groups with different preferences along economic lines produces an incentive to mobilize co-economic constituents to achieve political success. As inequality increases, political preferences start to diverge, the proportions of the population at either side of the economic spectrum changes, which leads to greater political conflict, which spurs greater mobilization efforts and eventually greater participation.

Finally, as inequality increases, the percentage of the population that lacks politically relevant resources increases, and an increasing segment of the population is no longer able to afford the costs of political participation. Although income inequality does not fully specify the socioeconomic composition of a population directly, we can make some assumptions, especially at higher levels of income inequality. On the one-hand, low levels of income inequality provide very little information concerning the socioeconomic status of members of the population. On the other hand, high levels of income inequality do provide information concerning the socioeconomic status of the population. At the highest levels of inequality, the population would be defined by a very few number of very wealthy individuals and large numbers of very poor individuals. Therefore, the likelihood that a person is of low socioeconomic status increases, taken together, as income inequality increases. Therefore, the probability that an individual is unable to pay the costs of participation increases as income inequality increases, and as income inequality increases, political participation should decrease.

4.3.3 Minority Participation

Researchers often find that African Americans (Shingles 1981; Tate 1991; Verba et al. 1993; Gurin, Miller, and Gurin 1980; Hardy-Fanta 1993), and Latina/os (de la Garza et al. 1992; Jackson 2003' Leighley and Vedlitz 1999), vote at rates higher than similarly place Anglos, and much higher than their economic positions would predict (Verba et al. 1993). Shingles (1981), finds that African Americans are far more politically active, though often with different forms of participation, than Anglos of similar socioeconomic status, Shaw et al. (2000) finds similar results for Latina/os. Minority groups, who share greater social solidarity, appear to be responding to poor economic conditions differently than like Anglos. Thus, we can expect different population groups to respond to changes in economic inequality differently, as a result of the greater social desirability of reducing inequality.

Shingles (1981) attributes African American in-group consciousness to political mistrust stemming from historical grievances, which also leads to an increased sense of internal political efficacy. Together, these attributes can encourage policy-related participation. Shaw et al. (2000), finds that socioeconomic status and social-connectedness dominate Latina/o culture, and produce higher levels of in-group consciousness. Dawson (1994) attributes this to the Black Utility Heuristic, where African Americans have developed social connectedness to overcome a history of subjugation and marginalization. Hero (2003) extends this model to Latina/os and finds similar, though less dramatic, results. However, the poor in America have endured high levels of political marginalization (Thompson 2012), without increasing levels of in-group consciousness.

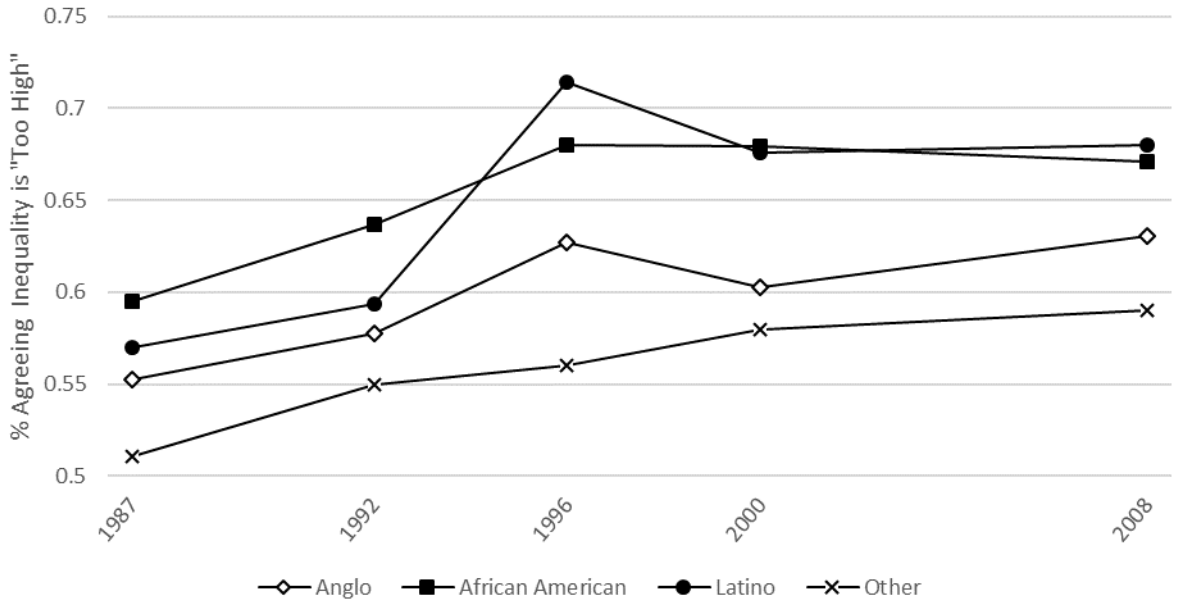
4.4 Different Patterns of Participation

4.4.1 Different Groups, Different Responses

For the most part, prior research has not taken sufficient account of the heterogeneity of group-centered opinions and feelings of solidarity, in minority populations, which may increase the salience of certain issues within minority populations and increase participation in politics. In fact, the inconsistency in causal findings on the relationship between income inequality and participation is most likely an effect of expecting all population groups to respond to inequality in a consistent manner. The primary focus of this research hinges on the assertion that different groups within a population respond to increases in economic inequality differently. There are three reasons why we should expect this trend.

First, minority populations perceive inequality at completely different rates. To demonstrate this trend, I use data from the nationally representative General Social Survey (GSS), which is consistent with previously used measures of the perception of inequality (McCall and Kenworthy 2009). This data is the best available to assess Americans perceptions of rising income inequality as it is the only data that contains questions that specifically reference income differences, avoiding issues of inequality related to race or gender. This question first appeared in the GSS in 1987, and was then replicated in 1992, 1996, 2000, and again in 2008. Although this measure lacks temporal consistency, there is sufficient information to draw inferences about aggregate trends.

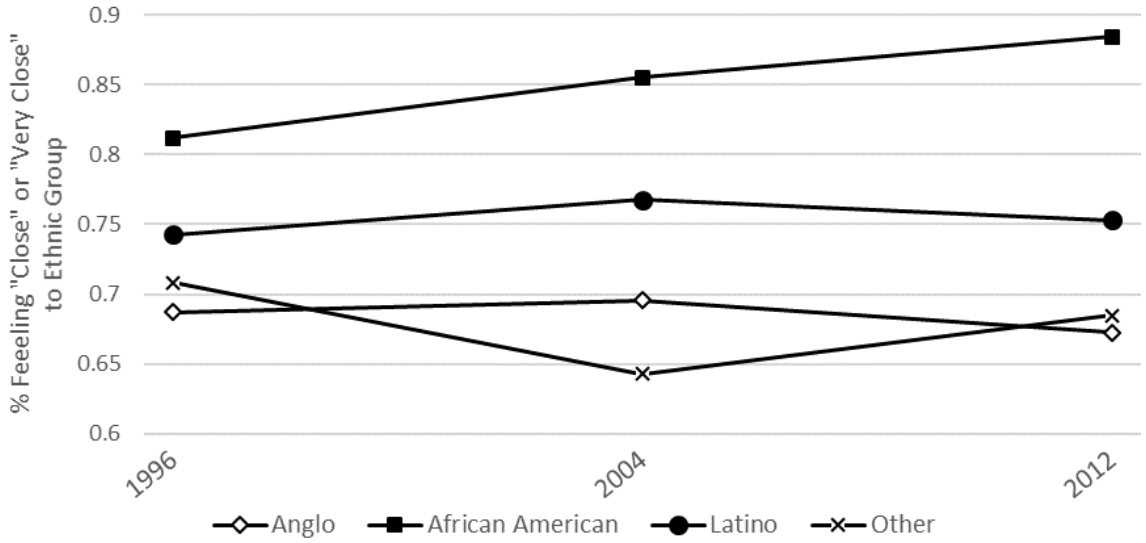
Figure 4.1. National Trends in Public Opinion on Income Inequality (by Race/Ethnicity)



Source: General Social Survey (selected years)

Figure 4.1 indicates that African Americans and Latina/os have significantly higher perceptions of inequality than Anglos, and that these trends are consistent over time. Additionally, these trends indicate that different racial/ethnic groups are experiencing changes in inequality at different rates. For instance, between 1992 and 1996, Latina/os experienced a much more dramatic increase in their perceptions of inequality than African Americans and Anglos, however the perception of inequality declined after 1996, becoming similar to the rates of perceived inequality in the African American population. Anglos show consistently lower perceptions of inequality than both African Americans and Latina/os. This trend either indicates that minority's population either reside in areas with greater income inequality, or are more sensitive to increases in inequality. Either way, minority populations are expected to respond to inequality in different ways than Anglos.

Figure 4.2. National Trends in Feeling Close to Own Ethnic Group (by Race/Ethnicity)



Source: General Social Survey (selected years)

Second, minority populations have consistently higher levels of in-groups attachment, producing higher levels of in-group social capital that enables them to act on behalf of the interest of the group (Portney and Berry 1997; Sullivan and Winburn 2010). Minorities are specifically suited, due to greater in-group consciousness (Dawson 1994), to see their fates as linked, and have similar preferences to others in their in-group; as well as act in solidarity to obtain benefits from government. As inequality increases, minorities should become increasingly stable in their desire to rectify historical grievances and work to redress these inequities. To demonstrate this trend, I use data from the GSS to show that minority populations, especially African Americans and Latina/os, have higher levels of in-group attachment.

Figure 4.2 shows trends in the percentage of each racial/ethnic group that feels either “close” or “very close” to their ethnic group. African Americans show the highest rates of closeness to their co-ethnics, and this trend is consistent across all three years the question was asked, and trending upwards. Latina/os show the next highest level of

social connectedness, which is also consistent across time, with a small upward trend. Anglos show the lowest levels of social connectedness, being lower than both African Americans and Latina/os for all years, as well as having no noticeable positive trend. In fact, social connectedness amongst Anglos decreased almost 3% between 2004 and 2012.

Third, the interaction of these two trends should provide poor minorities additional resources to overcome the cost of participation, resources not available to poor Anglos. Increasing inequality will produce a divergence in political preferences; producing greater conflict over the appropriate course of policy. When this happens, minority populations will have a greater incentive to work towards the betterment of the group. As inequality increases, the Anglo poor will not have the additional social resources to overcome the participation cost. Since engagement with politics requires resources, like time, money, and the skills to use time and money effectively (Verba et al. 1995), when economic inequality increases, the poor will have relatively fewer of these resources and participate less. Due to lower levels of social connectedness, the Anglo poor will not have the resources necessary to act as a group.

4.4.2 Roots of Rising Inequality

Scholars have debated the roots of rising participatory inequality. Most preliminary studies of the effects of economic inequality have focused on changes at the national level, which has led to inconsistent findings on the relationships between inequality and political participation (Solt 2008; Stockemer and Parent 2014; Leighley and Nagler 2014). Researchers utilizing state-level inequality measure have added

marginal increases to understanding this relationship, by accounting for the role that states play in shaping income distributions (Kelly and Witko 2012). Additionally, state-level research has found that inequality is associated with income segregation (Galbraith and Hale 2008) and greater income bias (Lim and Sanders 2012; Avery 2015), indicating that relative, not absolute, resources affect participation.

What appears to be missing in the literature is a micro-level analysis of inequality. Previous literature has focused on inequality measures at the state and federal level that aggregate millions of individuals spread out over thousands of miles. This aggregation could miss meaningful local level fluctuations in inequality that could have a more meaningful impact on individual behavior. Researchers have examined how poverty and inequality has been increasingly concentrated to particular places, noting that segregation based on class and race takes shape within and among counties, cities, and most notably for this research, neighborhoods (Wilson 1987, 1996; Massey and Denton 1993; Rothwell and Domina 2009; Hayes 2018). Inequality affects participation rates because it produces significant contextual changes in the social and political environments people inhabit (Verba et al. 1995). In short, experiences with inequality happen at the community level, through interactions with people who share geographic and demographic proximity.

4.4.3 Hypotheses

Given that this research expects to see different trends in participation arising from increasing economic inequality, a number of testable hypotheses arise.

Hypothesis 4.1: *The effect that income inequality has on participation is contingent on neighborhood median income*

Hypothesis 4.2: *Predominately Anglo neighborhoods will respond to higher income inequality by decreasing participation*

Hypothesis 4.3: *Predominately minority neighborhoods will respond to higher income inequality by increasing participation*

4.5 Data and Methods

4.5.1 Neighborhood Context

Analysis of racial inequality and economic inequality on determinants of group behavior and preferences rely on the assumption that the racial and economic context of a specific geography affect the way that we perceive our surroundings (Baybeck 2006). Geographical context can capture racial and economic context through multiple political jurisdictions. These often include the state (Huckfeldt and Kohfeld 1989), the county (Branton and Jones 2005; Soss, Langbein and Metelko 2003), or even the municipality (Gainsborough 2001; Welch et al. 2001). Additional research (Oliver and Mendelberg 2000; Welch et al. 2001, Cho and Baer 2011) highlights the importance of the neighborhood as an appropriate context to study racial or economic predictors of political behavior or attitudes.

This research follows the work of previous researchers who have focused on neighborhood units. Previous research that has focused on neighborhoods has employed studies over small geographic areas, but this study extends this research to a larger geographic region, an entire state. Although California data is somewhat limited by data availability along census defined boundaries, which are largely arbitrary boundaries, census block-groups are a good proxy for neighborhoods. Census block-groups are similar in size, population, and number of housing units (Donaldson 2013). Donaldson, using the 2009 American Housing Survey, finds that the distance from the

typical American's house to the edge of his or her community is between 520 and 1060 meters, a distance roughly equal to the radius of one median-sized census block-group. He also finds regional differences in neighborhoods, being smaller in the south and larger in the Midwest, a finding mirrored in census block-groups. The average census block-group has 1532 residence and 605 housing units, which is similar to that of neighborhoods in California. Baybeck (2006), in a study motivated by the desire to find the appropriate context for analysis, indicates that the block-group does have a meaningful impact on political factors. By focusing on the census block-group level, a much finer grained level than previous research, this analysis will extend the literature beyond national and state level findings.

Research at the census block-group level will allow for a greater variation of racial/ethnic or economic contexts. California, a state of more than 38 million people, has only 58 counties and the variation within these counties is somewhat limited. California has 710,145 census blocks grouped within 24,057 block-groups, which contains a much larger variance in economic trends. Due to the need to aggregate up one geographical level to develop a measure of inequality, this research will be done at the block-group level. The information on economic makeup at the census block level is available through the California Secretary of State's office and the US Census Bureau.

4.5.2 Variables

The dependent variable is a neighborhood measure of participation at the census block-group level. Although previous research has attempted to examine the effects of economic inequality on multiple measures of participation, only voting information is

available at the micro-level employed in this study. This analysis will focus on the percentage of the census block that voted. The variable will be constructed by dividing the number of individuals in the census block that cast a vote for the proposition by the voting eligible population (VEP).

This analysis will employ three primary independent variables of interest; neighborhood median income, neighborhood economic inequality, and racial composition. The first independent variable of interest will be the neighborhood's median family income measure at the Census block-group level, which will serve as a proxy for the level of absolute resource. The second independent variable of interest will be the neighborhood's level of economic inequality, measured with a census block-group Gini Coefficient. The Gini coefficient, an often used measure of economic inequality, which is "exactly one half of the relative mean difference, which is defined as the arithmetic average of the absolute values of differences between all pairs of incomes" (Sen, 1997, 30-31). Mathematically the Gini coefficient can be derived for any population of income values from the formula:

$$G = (1/2n^2\mu)\sum_{i=1}^{n}\sum_{j=1}^{n}|y_i - y_j|$$

where G is the Gini coefficient, n is the population size, μ is the population variance, yi is the specific income and yj is all other incomes. The Gini coefficient has a few beneficial attributes; it is decomposable, it is independent of income scale and population size, and is bound between zero and one (Cowell 2010). Since one level of aggregation is necessary to generate a Gini coefficient, Gini coefficients will be generated for all census block-groups, and analysis will be performed at the block-group

level. A squared term for Gini will also be included to account for the non-linear relationship between economic inequality and voting participation.

The third independent variable of interest will be the neighborhood's minority racial composition. Four categorical dummy variables will correspond each to the census block-group's percentages of Anglo, African American, Latina/o, and other populations. In the analysis the variable for Anglo will be excluded as the baseline.

A number of common control variables, consistent with previous research (Garand 2010; Solt 2010; Kelly and Witko 2012), will be used in this analysis. These variables include the percent of the population over the age of thirty-five that is college educated, and the percent of the population that is female. To account for the competitiveness of elections, which can increase overall turnout, a measure of the absolute difference in the two party vote share is included. To control for racial threat, a measure of ethnic fractionalization is included. This measure is a Herfindahl-Hirschman Index of racial composition constructed from the four racial categories listed above. Additionally, since the effect of economic inequality is conditioned on both the location of the observation on the economic spectrum as well as the racial composition of that observation, a number of interaction terms will be included in the final model.

4.6 Findings

Table 4.1 presents the results of three separate models of political participation based on three different specifications of the interactions indicated by the hypotheses. Model 1 excludes all of the specified racial interactions, and primarily focuses on the nexus between economic inequality and absolute resources, measured by median

family income. This model replicates findings from previous research that examined the curvilinear relationship between income inequality and participation (Chapter 3). The findings are consistent with previous models, indicating that expected participation is lowest in neighborhoods at the high and low extreme levels of inequality, and highest in the middle of the income inequality spectrum.

Model 2 includes interactions between the racial context and the income context, as well as between the racial context and the resource context. The findings from Model 2 indicate that the effect of income inequality is contingent on the proportion of the neighborhood that is either Latino or African American, yet would indicate a differing relationship. Model 2 indicates that the effect of income inequality in predominantly African American Communities is to decrease participation, while it increases participation in predominantly Latina/o communities. However, there is reason to believe that the absolute level of resources should condition the effect that race and income inequality has on participation (see Gilens 2012).

Model 3 contains all necessary model interactions to produce meaningful insights concerning the interaction between economic inequality, placement within the economic spectrum, and the racial context. The inclusion of the triple interaction term is both specified by the theory and allows for better specification of the effects of increasing interpretation difficult. Since the interpretation of a triple interaction term is difficult to interpret from calculated coefficients, the interpretation of these relationships will proceed using graphs of each of the interactions of interest.

Table 4.1. The Effects of Economic Inequality, Median Family Income, and Race/Ethnicity on Voting Behavior

	1	2	3
Vote $\%_{t-1}$	.981***	.987***	.993***
	(.034)	(.033)	(.036)
Gini Coefficient	.394***	.259***	.190***
	(.030)	(.033)	(.033)
Gini Coefficient^2	-.638***	-.584***	-.515***
	(.037)	(.037)	(.038)
Median Family Income	.000***	.000**	.000***
	(.000)	(.000)	(.000)
Gini * Median Family Income	.002***	.000***	.007***
	(.000)	(.000)	(.001)
% College Educated	.000***	.000***	.000***
	(.000)	(.000)	(.000)
% Female	.000***	.000***	.000***
	(.000)	(.000)	(.000)
2 Party Vote Share	.031***	.031***	.035***
	(.001)	(.001)	(.001)
Ethnic Fractionalization	.030***	.031***	.046***
	(.002)	(.002)	(.002)
African American	-.191***	-.159***	-.482***
	(.003)	(.013)	(.024)
African American * Gini		-.080**	.281***
		(.033)	(.059)
African American * Median Family			.017***
			(.004)
African American * Median Family * Gini			.055***
			(.012)
Latino	-.202***	-.276***	-.364***
	(.002)	(.006)	(.011)
Latino * Gini		.200***	.201***
		(.015)	(.026)
Latino * Median Family			-.003***
			(.000)
Latino * Median Family * Gini			.051***
			(.005)
Other	-.171***	-.171***	-.172***
	(.002)	(.002)	(.002)
Constant	.437***	.478***	.535***
	(.007)	(.008)	(.008)
N	419,096	419,096	419,096
Elections	21	21	21
Adj R-squared	.478	.479	.483

Dependent Variable: Census Block Voting Percentage. All regressions include a lagged dependent variable and a dummy variable for election type.
Significance level: * p<.05; ** p<.01; *** p<.001

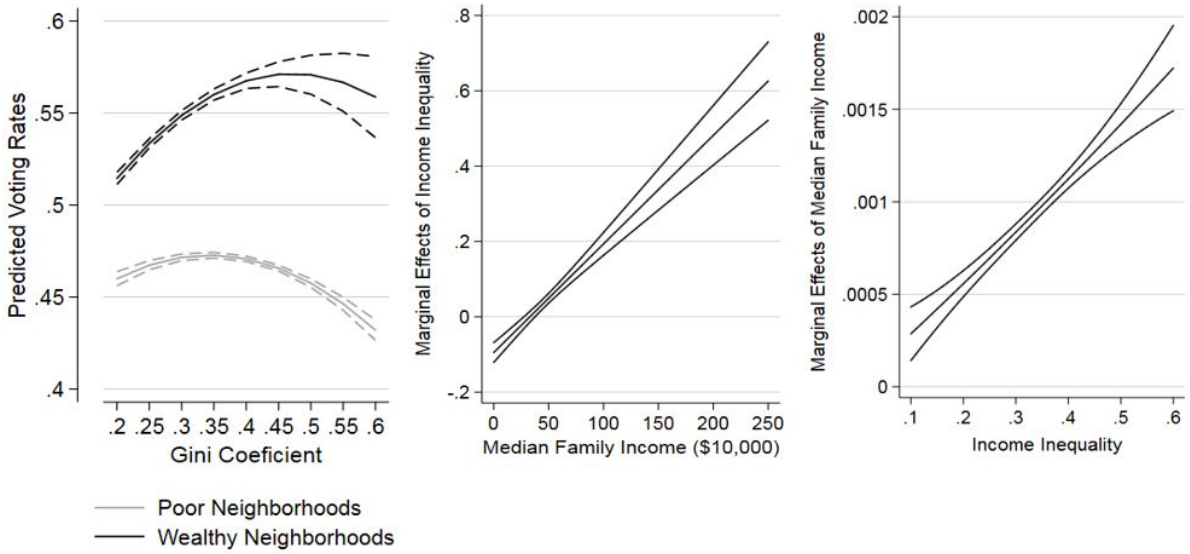
4.6.1 Results

Figure 4.3 presents the results from Model 1 in Table 4.1 and provides support for Hypothesis 1. The left panel of Figure 4.3 indicates that political participation is higher for wealthier neighborhoods across the entire inequality spectrum. This finding is consistent with previous research on this relationship (Rosenstone 1982; Verba et al. 1995; Lim and Sander 2012; Leighley and Nagler 2013; Avery 2015). Consistent with the theory, as economic inequality begins to increase from the lowest levels of inequality, participation appears to go up until median inequality is reached. As inequality increases past median inequality towards higher levels of inequality, participation decreases. However, this decrease is the most pronounced for poor neighborhoods. This indicates that inequality is influencing participation rates differently for poor and wealthy neighborhoods. The overall effect of increased levels of income inequality in wealthy neighborhoods is positive, while the overall effect for poor neighborhoods is negative.

The middle and right pane of Figure 4.3 show the marginal interactive effects that income inequality and median family income have on participation rates. As median family income increases, the effect of income inequality on neighborhood voting rates is increasingly positive. This is true for inequality as well, as income inequality increases, the positive effect that median family income has on neighborhood voting rates increases. Although this would indicate that minority populations will respond to increasing income inequality with decreased voting rates, as many predominantly minority neighborhoods have relatively low median family incomes, this model does not account for the potentially positive effects of social connectedness. This research now

turns to determining if different racial groups respond to higher levels of income inequality differently.

Figure 4.3. Effects of Economic Inequality and Income on Neighborhood Voting Rates[19]



4.6.2 Different Races, Different Reactions

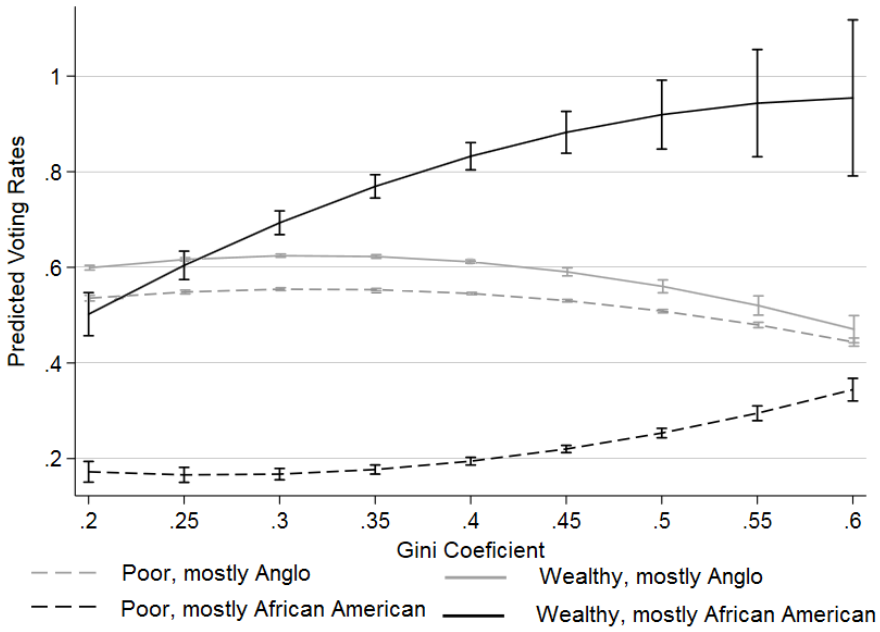
Figure 4.4 presents results from Model 3 in Table 4.1, and presents predicted voting rates based on median family income for mostly Anglo and mostly African American neighborhoods[20]. It is apparent that income inequality is affecting these groups differently. In fact, the trends demonstrated in Figure 4.4 provide evidence for Hypotheses 2 and 3. At the lowest levels of economic inequality, wealthy mostly Anglo, poor mostly Anglo, and wealthy mostly African American neighborhoods all have similar levels of expected political participation, while poor mostly African American neighborhoods have the lowest levels of political participation. At slightly higher rates of

[19] Expected values shown with 95% confidence bands.

[20] Neighborhoods that are mostly a single race/ethnicity are defined as neighborhoods which are at least 80% that race/ethnicity. Results for different years are available in Appendix H.

income inequality, poor mostly African American neighborhoods show little change until median inequality is reached and then participation increases. Participation stays below 20% until median rates of economic inequality, and then participation increases to almost 40% at the highest rates of economic inequality. However, at no point along the inequality spectrum do poor mostly African American neighborhoods reach the same level of participation as poor mostly Anglo neighborhoods.

Figure 4.4. Effects of Economic Inequality, Income, and Race on Neighborhood Voting Rates[21]



Wealthy mostly African American neighborhoods have higher expected levels of participation than their poor counterparts do, across all inequality levels. However, wealthy mostly African American neighborhoods have higher levels of expected participation at higher levels of income inequality. Participation starts at about 50% until these neighborhoods reach median rates of economic inequality, where expected

[21] Expected values shown with 95% confidence bands.

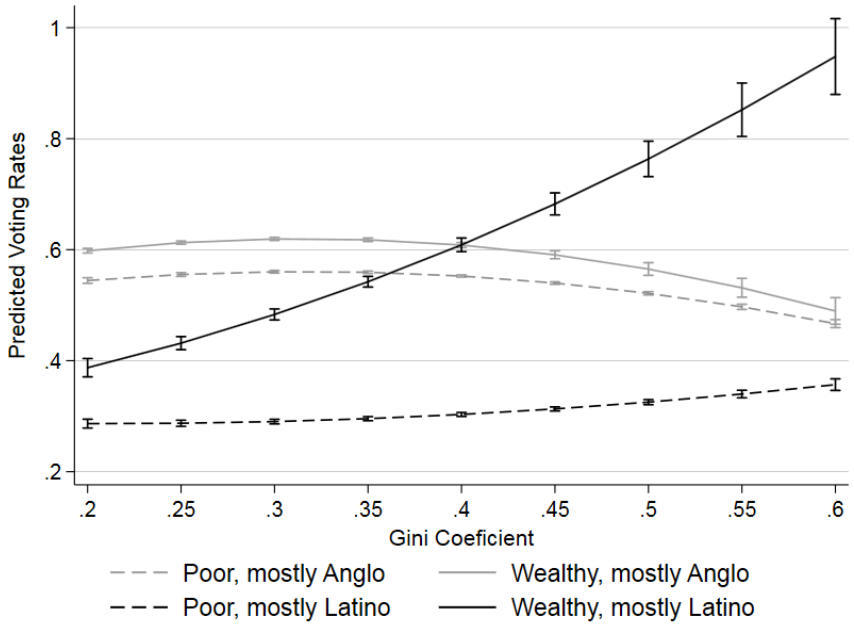
participation levels at about 80%. Although participation rates of wealthy mostly African American neighborhoods have lower levels of participation at the lowest levels of participation, as levels of income inequality start to increase, expected participation for these neighborhoods surpasses Anglo neighborhoods of similar median household incomes.

As economic inequality increases, poor mostly Anglo neighborhoods show a steady but slight decrease in participation; from about 55% at the lowest levels to about 42% at the highest. As economic inequality increases, wealthy mostly Anglo neighborhoods show a steady and slightly increased decline in participation, from about 60% at the lowest rates of economic inequality to about 44% at the highest rates. These findings potentially indicate while previous research on the effects of income inequality on participation rates were unable to agree upon the relationship. Different racial groups are reacting to higher levels of income inequality in different ways. Higher levels of income inequality are causing mostly African American neighborhoods to participate more, and the effect on mostly Anglo neighborhoods is either small and negative or non-existent.

Figure 4.5 presents results for mostly Latina/o neighborhoods, with the results for mostly Anglo neighborhoods as a reference, and produces findings similar to those for African Americans. Poor mostly Latina/o neighborhoods appear to respond to increasing economic inequality in a manner similar to poor mostly African American neighborhoods, starting with participation rates about 30% at the lowest levels of economic inequality and increasing to about 37% at the highest levels. Wealthy mostly Latina/o neighborhoods show much lower levels of participation than either wealthy

mostly African American, Anglo or poor mostly Anglo neighborhoods. At higher levels of income inequality, the predicted rate of political participation increases for wealthy mostly Latina/o, from about 39% at the lowest levels of economic inequality to about 90% at the highest levels.

Figure 4.5. Effects of Economic Inequality, Income, and Ethnicity on Neighborhood Voting Rates[22]



Figures 4.4 and 4.5 present relatively clear support for Hypotheses 2 and 3, providing evidence that different racial and ethnic groups respond to changes in economic inequality differently, and indicating that different models of the relationship between economic inequality and political participation may be appropriate for different economic/racial/ethnic groups. Although poor mostly African American and Latina/o neighborhoods show rates of political participation lower than that of poor mostly Anglo neighborhoods, minority groups respond to increases in economic inequality by

[22] Expected values shown with 95% confidence bands.

increasing their participation rates, while mostly Anglo neighborhoods show decreases in participation. While this research was unable to fully measure the effect of in-group connectivity, we would expect that the existence of such would lead to greater levels of participation stemming from the desire to improve in-group conditions. This is exactly what these models indicate; neighborhoods with higher levels of in-group connectivity are demonstrating higher levels of participation produced from higher levels of inequality.

4.7 Conclusion

Using micro-level analysis, this research has identified racial/ethnic/economic group differences in participatory response to changes in economic inequality. While Anglo groups respond to increasing income inequality differently based on economic position, with wealthier groups increasing participation, or staying static, and poor groups decreasing in participation, minority groups appear to be responding to increases in inequality by increasingly participating in politics. In fact, wealthier minority populations have substantially increased expected participation rates as economic inequality increases. The causal mechanism proposed by this research is that minority populations have higher levels of social connectivity that allows them to act collectively, and thus increase their collective competition for governmental resources.

Although minority populations respond to higher levels of income inequality with increased levels of participation, these groups may not be in any better position to reduce the negative effects of inequality that disproportionately affect the minority community. The results do indicate that higher levels of participation are expected for

minority neighborhoods as the level of inequality increases, but because minority populations are disproportionately at the bottom of the income distribution, even at the highest level of participation the average minority neighborhood is still expected to have a lower voting rate than the average Anglo neighborhood.

One of the limitations of this work is that the social connectedness theory is not tested empirically; it exists as the causal mechanism that produces the effects that this research identifies. Testing social connectedness has its limitations grounded in the difficulty in appropriately measuring the concepts at the neighborhood level. Instead of measuring the levels of social connectedness, this research develops a theoretical claim that communities with higher levels of social connectedness should respond to higher levels of income inequality by mobilizing to support the community and produce higher levels of participation. To test this theoretical claim, I examined the effects of higher levels of income inequality on groups that previous research had identified as having higher levels of in-group connectedness, minority communities, against an Anglo baseline. The results were consistent with what would be expected from the social connectedness theory; minority groups respond to higher levels of income inequality with higher levels of participation.

The effect of social connectedness should depend on the ability of the group to mobilize to better the economic or political circumstances of the group. Elections should serve as a mechanism to improve group circumstances only insofar as the group sees said election as having the potential to make meaningful changes to current circumstances. This implies that certain elections will have greater potential to improve circumstances, through descriptive candidates or redistributive propositions. Future

researchers can leverage this implication by comparing elections that have more explicit potential to improve group circumstances. Ultimately, researchers should find, consistent with the findings presented here, that groups that feel a greater sense of connection, that have higher levels of social capital, are the ones most likely to respond to economic difficulties, such as rising inequality, in a manner most suited to make actual policy change.

CHAPTER 5

CONCLUSION

This chapter concludes the dissertation, and proceeds accordingly. In the first section I briefly summarize the findings. In the second section I discuss the theoretical and substantive implications of the dissertation. In section three I suggest a number of potential research projects that stem from this research. In section four I offer some concluding remarks.

5.1 Summary of Findings

Previous economic theories indicate that as income inequality increases, a larger proportion of the population should desire redistributive benefits (Meltzer and Richard 1980), but a smaller proportion of the population will participate (Brady 2004; Solt 2010). The research presented here provides evidence that increasing income inequality increases levels of political participation as people compete for the resources and particularized benefits of government, but only to a point. At high levels of income inequality, preferences diverge and participation rates change, however unevenly based on racial/ethnic composition. Under certain circumstances, increasing income inequality makes political participation more attractive as a means to improve economic distributions. In response to this, and because of the expected costs of redistributive programs, the well-off mobilize to counteract the increased participation of the poor. At the highest levels of income inequality, an income bias in the electorate forms, and citizens in the highest income quintile are much more likely to vote than the poor, and much more likely to oppose liberal economic policies.

These trends could threaten American democracy. Increasing income inequality produces systematic differences in participation and preferences, which leads to a system that is more responsive to a subset of the American electorate. These findings suggest a political climate where decision makers have become more responsive to members of certain economic classes, while neglecting others.

In Chapter 2, I analyzed the effects of higher levels of income inequality on preferences for liberal economic policies, and the distribution of preferences, and found that income inequality affects both the adoption of preferences as well as the distribution of individuals within a community who share policy preferences. First, I find lower levels of support for liberal economic policies in communities with higher levels of median incomes, but that this relationship is conditioned by level of income inequality. As income inequality increase, the proportion of the population that supports liberal economic policies increases. This finding indicates that absolute and relative resources are working in opposite directions for the formation of economic policy preferences. Inequality affects the distribution of preferences by primarily affecting the distribution of individual's economic positions within a population. At higher levels of income inequality, the probability that the majority of the population will be below the average income increases. At the highest levels of inequality, the vast majority of the population will be below average income, and support for liberal economic policies will be high. However, I find that inequality has a smaller tertiary effect of altering the proportion of the population that supports liberal economic policies irrespective to the proportion of the population below the state median income. Taken together, increasing income inequality increases support for redistributive policies.

Second, I find that income inequality affects the distribution of preferences within a population. At very low levels of income inequality, the distribution of preferences in a community displays high levels of kurtosis and skew in the direction of median community income. In communities with high median income, the majority will oppose liberal economic policies, and in communities with low median income, the majority will oppose them. As income inequality increases, the distribution of preference will move towards an evenly bimodal distribution, with the proportions of the population that oppose or support liberal economic policies becoming approximately equal in size. At this level of income inequality, political competition and mobilization should be at its highest. Additional increases in inequality increase the proportion of the population below median incomes, and the distribution of preferences skews towards support for liberal economic policies. These findings are drawn from actual voting rates, and confirms what has been observed in public opinion polls.

In Chapter 3, I develop a new theory for the relationship between income inequality and participation. I theorize the influence that income inequality has on political participation is based on the distribution of political power of individuals at different points of the economic spectrum, the difference in preferences that is formed as income inequality increases, and the proportion of the population that can afford to participate in politics. Participation should increase as inequality increases, as it drives the proportion of the population holding divergent preferences towards equal proportions. This near equal distribution in preferences increases political competition, which in turn drives mobilization and participation. As competition increases with an increase in inequality, the costs of participation also increase, due to the resulting

imbalance of power between the rich and the poor and the increasing proportion of the population that can no longer afford to participate. Once inequality hits a critical point, the rising costs to participation leads to fewer people at the bottom of the income distribution participating, decreases political competition, decreased mobilization, which further decreases participation. As populations experience high levels of participation, the mobilization effects will completely give way to differences in relative power and resources, decreasing participation, and participation will reach its lowest rates.

To test my theoretical expectations, I employ inequality and voting data from 1992 to 2012 and find that levels of participation are affected by changes in inequality contingent on both the size of the change as well as the current levels of inequality affecting the population experiencing change. Consistent with my theory I find that participation rates are low in populations with near income equality (45% for general elections and 27% for Primary elections). At middling levels of inequality, higher levels of participation are expected (57% for general elections and 36% for Primary elections). However, expected rates of participation are the lowest at the highest levels of participation (40% for general elections and 22% for Primary elections). Previous researchers have attempted to identify a linear relationship between income inequality and participation, and have yet to come to consensus on how income inequality affects participation rates. This chapter theorizes, and finds evidence of, a non-linear relationship. The possibility of a curvilinear relationship has been overlooked, and is the largest theoretical implication of this chapter.

In chapter 4, I examined racial/ethnic/economic group differences in participatory response to changes in economic inequality. Recent research has shown that

increasing economic inequality in America has led to decreasing levels of political participation in the form of voting. However, these studies have treated all Americans the same while not accounting for the possibility of different responses to increasing income inequality from different racial and ethnic groups. I examined the way that different racial/ethnic groups, with different levels of social connectedness responded to income inequality. I drew upon recent research in in-group social capital to theorize that group-centered opinions and feelings of solidarity, in minority populations, motivate minority populations to increase political interests and participation in politics in response to increasing income inequality.

To test my theoretical expectations, I examined neighborhood voting rates, and levels of income inequality, from 1992 to 2012, and utilized spatial regression modeling, to show that different racial/ethnic groups respond to changing levels of income inequality differently. I show that neighborhoods that are primarily African Americans, and to a lesser extent Latina/o, respond with increasing participation, while only the poor Anglo majority responds by becoming increasingly disenfranchised. Although the results indicate that minority neighborhoods will respond to increased inequality with increased participation, because minority populations are disproportionately at the bottom of the income distribution, minority neighborhoods are still expected to have a lower voting rate than similarly unequal Anglo neighborhood. This finding emphasizes the importance of the interaction between race, ethnicity, and economic inequality and suggests that the lack of social capital within the poor Anglo community is driving the lower levels of voter turnout identified in previous research.

5.2 Implications

One of the implication of this research is that individuals living in the highest inequality context may no longer have the ability to pursue an approach to reducing income inequality that depends on signaling policy makers through democratic action. At the highest levels of inequality, participation reaches its lowest level, and is increasingly biased towards the wealthy. This class-bias leads to a less equitable balance of power between the haves and the have-nots, affects the substance of economic policy, has real and lasting effects on distributional outcomes, and can make inequality even worse. The result of this cyclical process is high inequality populations reinforcing higher levels of inequality though an inability to foster policy change.

Furthermore, this research indicates that if populations want to work towards the improvement of their economic standing, they may want to stay in more economically/racially/ethnically homogenous communities. This implication is contradictory to the normative movement towards greater levels of diversity and inclusiveness along economic and race lines. Such policies as greater neighborhood desegregation, or planned mixed income communities may be making it harder to build the kind of in-group social connectedness that is necessary to improve group circumstances. While this conclusion may seem morally repugnant, and contrary to decades of progress, it does exist as an implication of this work.

There are a number of practical applications of this research that are of interest to campaigns, policy entrepreneurs, and public opinion researchers. Campaigns almost never operate with slack resources, which provides pressure on campaigns to be as strategic with their resources as possible. The results from chapters two and three may

offer campaign organizers, and media consultants, additional information on where their resources may be the most effective. For instance, say a candidate supports liberal economic policies and wants to gain an electoral advantage. They would want to go where support for those policies is the highest, but participation may be low, so that mobilization effects will produce the highest returns on their investment. These chapters indicate that campaign efforts in low median income low inequality neighborhoods will reach the largest proportion of policy supportive unlikely voters. In these environments, mobilization efforts may be the most effective. Likewise, if a candidate opposes liberal economic policies, they would want to expend their resources in high median income, high inequality, communities, as this context offers candidates with that preferences the largest pool of policy supportive unlikely voters.

There are additional practical applications for representatives. Public opinion research at the sub-state level is often cost prohibitive. However, most politicians in America represent populations smaller than whole states. Politicians could use this research to extrapolate likely preferences on liberal economic policies of sub-state populations from demographic data and statewide public opinion polls. The fining from Chapter 3 indicate that the deviation in preferences for a population, from a state baseline, is dependent on those populations' deviations in inequality and median income. For populations that are more unequal (higher income inequality) than the state as a whole, support for liberal economic policies should be higher than the state average. In populations that are less unequal (less income inequality), support for liberal economic policies relative to the state average will depend on median income. When a population has a higher median income than the state median income, that population

should oppose liberal economic policies more than the state average. When a population has a lower median income than the state median income, that population should support liberal economic policies more than the state average

One of the primary limitations of this work is that it only tests the effect of a single level of contextual inequality, the local level. However, changes to political preferences and participation could be influenced by many contexts of inequality, as Baybeck (2006) concludes. Individuals can base their perceptions of inequality on their neighborhood, city, state, and even nation. All of these levels could be exerting independent effects on political preferences and participation independent of one another, and this research is unable to disaggregate those different effects. Furthermore, inequality at different levels could activate policy considerations at that level; where national trends in inequality could affect preferences for national tax policy, inequality trends at the state level could affect preferences for minimum wage laws or nutrition assistance, and inequality at the local level could be most salient for municipal policies. Individuals may live under multiple inequality contexts, where inequality may be low at the local level, high at the state level, and middling at the national level, and these contexts may be exerting contradictory pressures on individual behavior. Unfortunately, this research is unable to examine the effects of inequality in different contexts.

An additional limitation of this work is that it assumes that inequality at the local level is following larger inequality trends. However, the increases in income inequality found nationally may not necessarily be evident at local levels. Although aggregate income and wealth inequality is increasing, so is class based segregation, where the haves are living in communities increasingly populated by other haves and the have-

nots are living in communities increasingly populated by other have-nots. The way that national level inequality is affecting local level inequality is yet unknown as it is an effect of rising aggregate inequality and increasing economic segregation. Future research should determine if national level trends are being mirrored at the local level to determine if an increase in participation, produced by local level inequality, should be expected from increases in national-level inequality.

5.3 Future Research

Although this dissertation has clarified a number of the relationships between increasing inequality and levels of political participation and preferences formation, it has also left a number of assumptions untested. These assumptions are fodder for future scholarly research, and I would like to take a minute and discuss some of them.

As inequality affects preferences and participation rates, it is unclear how these trends affect the responsiveness of government. Chapter 2 indicates that the populations with the highest levels of inequality have the greatest expected support for liberal economic policies, yet Chapter 3 indicates that they are the least likely to vote. If the voting rates of supporters of liberal economic policies are the most effected by increasing inequality, then the government may become less supportive of these policies, and less responsive to supporters of redistributive policies. Although this possibility is less likely in direct democracy election, such as the ones examine in Chapter 2, this information could be used to test a representation hypothesis. Using voting rates on ballot propositions with an economic frame (a larger subset of all propositions than the inequality frame propositions examined in Chapter 2) to develop a

community-neighborhood economic liberalism score. This research could follow a similar quantification method as the DW-Nominate scores for representatives employed by Poole and Rosenthal (1997). Community-neighborhood economic liberalism scores could be compared to the economic liberalism scores of representatives who represent those populations to determine if rising inequality is producing an income bias in representation. Additionally, tis methodology could test the differences in responsiveness of state and national level representatives, to see if the class-bias extends beyond national-level representatives to local-level ones.

Additional research could determine if rising inequality is affecting rates of candidate emergence. It is possible that the representational inequality that has been identified (Bartels 2002; Gilens 2005, 2009; Jacobs and Page 2005; Flavin 2012) is not a product of representatives choosing to be less responsive to the preferences of certain members of their constituency, but could be affecting the emergence of quality candidates whose preference align with that of lower socioeconomic populations. Although extensive research has been done on the effects of racial inequality (Barreto, Segura, and Woods 2004; Canon 1999; Branton 2009) and gender inequality (Fox and Lawless 2004; Pettey 2017) on candidate emergence, no study to date has fully examine the effects of income inequality on candidate emergence. I theorize that rising inequality inhibits the emergence of quality candidates that support the policies of lower socioeconomic classes, which leads to a class-bias in choices, if not necessarily in preferences. I would test this proposition using a national dataset on emergent political candidates to determine if inequality has affected rates of emergence of candidates from different socioeconomic backgrounds.

While one of the limitations to Chapter 4 is that it does not directly test the existence of higher levels of social capital in certain populations, the effect of rising income inequality on social capital formation is a potential avenue for future research. Chapter for provides evidence for the theory that some populations leverage social connectedness to mobilize a group effort to redress group based grievances. Thus, rising inequality leads to greater levels of political participation. What we do not know is how rising income inequality, ceteris paribus, influences the formation of social capital. One of the theories presented in Chapter 4 is that that being poor is not a social organizational factor strong enough to develop strong group attachments, as people do not see a benefit from being a member of this group. Therefore, we should expect that in populations that have no other linkage mechanisms than their economic class, levels of social capital should never rise above low levels. However, in populations that have pre-existing linkage mechanisms, increasing income inequality ay increase the levels of social capital, as it provides additional motivations to act collectively. I could test this theory using nationally representative surveys that assess social capital, and compare how rising inequality has affected social capital creation in populations with pre-existing social linkages, such as racial/ethnic homogeneity, strong union membership, or high levels of church attendance. This research could test whether income inequality had an effect on the formation of social capital, independent of other factors known to increase social capital.

Finally, in future research I could test the theory, presented in Chapter 3, that as inequality increases, the proportion of the population that is unable to pay the costs of participation increases, by examining the effect that inequality has on voter roll-off. Roll-

off voting is the process where individuals vote for the major offices, but do not vote for the lower positions, resulting in a partial ballot. This study would build off previous research on the information theory of voter participation that argues that voters rely on information to vote, and if they do not feel comfortable, or lack the necessary amount of information, they will not vote (Matsusaka 1995; Wattenberg, McAllister, and Salvanto 2000; Lupia and Matsusaka 2004). If income inequality is increasing the proportion of the population that has the necessary resources to participate in politics, the proportion of roll-off voters should increase, and looking at overall participation rates may understate the negative effects of rising inequality on participation.

5.4 Conclusion

Over the course of this dissertation, I have examined a few of the ways that higher levels of inequality have affected political behavior in an American state. Although I have focused on a single state, I have discussed the many reasons why this research is applicable to the nation as a whole. Furthermore, even though America may seem increasingly divided, along lines of race, class, religion, sexual orientation, partisanship, and interpretations of the American dream, community and neighborhood life in America has far more similarities than differences. People of all stripes respond to changes in their economic environment in much the same way, although some have additional resources that allow them to respond largely. For these reasons, the behaviors that I examined in California are likely to be present in every state from Alabama to Wyoming.

APPENDIX A

THE EFFECTS OF INCOME INEQUALITY ON SUPPORT FOR LIBERAL ECONOMIC POLICY (SPECIFIC PROPOSITIONS)

	1992	1993		1994	1996
	Prop 167	Prop 172	Prop 173	Prop 185	Prop 210
Median family Income	-0.159***	-0.085***	-0.023	-0.071***	-0.093***
(in $10,000)	(0.015)	(0.007)	(0.015)	(0.017)	(0.028)
Income Inequality	0.095**	-0.005	-0.121***	0.247***	0.100
	(0.040)	(0.030)	(0.024)	(0.054)	(0.065)
% College graduates	0.002***	0.001***	-0.001***	0.004***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Female	-0.002***	-0.000	0.001	-0.002**	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
% African American	0.001**	0.000	0.001***	-0.001	0.002***
	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)
% Latino\a	-0.000	-0.000	0.000**	-0.000	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Other	0.007***	0.005***	0.001	0.005***	0.012***
	(0.002)	(0.001)	(0.002)	(0.002)	(0.003)
% Democratic Vote Share	0.160***	0.094***	0.039*	0.185***	0.236***
	(0.044)	(0.030)	(0.021)	(0.054)	(0.047)
Ethnic Fractionalization	-0.033	0.007	-0.028	-0.056	-0.020
	(0.027)	(0.017)	(0.019)	(0.034)	(0.038)
Constant	0.486***	0.515***	0.714***	0.120*	0.495***
	(0.042)	(0.040)	(0.034)	(0.064)	(0.048)
Observations	20,739	20,735	20,737	21,200	20,918
R-squared	0.431	0.212	0.401	0.508	0.585

	1996	1998		2000	2002
	Prop 217	Prop 10a	Prop 11	Prop 37	Prop 47
Median family Income	-0.174***	-0.014	-0.010*	-0.033**	-0.080***
(in $10,000)	(0.019)	(0.010)	(0.006)	(0.012)	(0.017)
Income Inequality	0.030	0.037	0.104***	0.062***	0.037
	(0.050)	(0.037)	(0.031)	(0.021)	(0.026)
% College graduates	0.001***	0.004***	0.004***	0.002***	0.003***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Female	-0.000	0.001***	0.000	-0.177***	0.080
	(0.001)	(0.000)	(0.001)	(0.043)	(0.063)

% African American	0.001*	-0.000	-0.002**	0.002***	0.003***
	(0.001)	(0.000)	(0.001)	(0.000)	(0.001)
% Latino\a	0.000	0.002***	0.000*	0.000***	0.003***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Other	0.007***	0.004***	0.004*	0.001	0.005
	(0.003)	(0.001)	(0.002)	(0.002)	(0.003)
% Democratic Vote Share	0.175***	0.119***	0.063***	0.214***	0.197***
	(0.044)	(0.019)	(0.020)	(0.026)	(0.053)
Ethnic Fractionalization	-0.050*	-0.021	-0.034**	0.001	0.067**
	(0.030)	(0.014)	(0.015)	(0.015)	(0.027)
Constant	0.515***	0.223***	0.377***	0.541***	0.301***
	(0.046)	(0.028)	(0.040)	(0.033)	(0.048)
Observations	20,917	16,225	16,223	16,185	22,174
R-squared	0.468	0.502	0.498	0.543	0.547

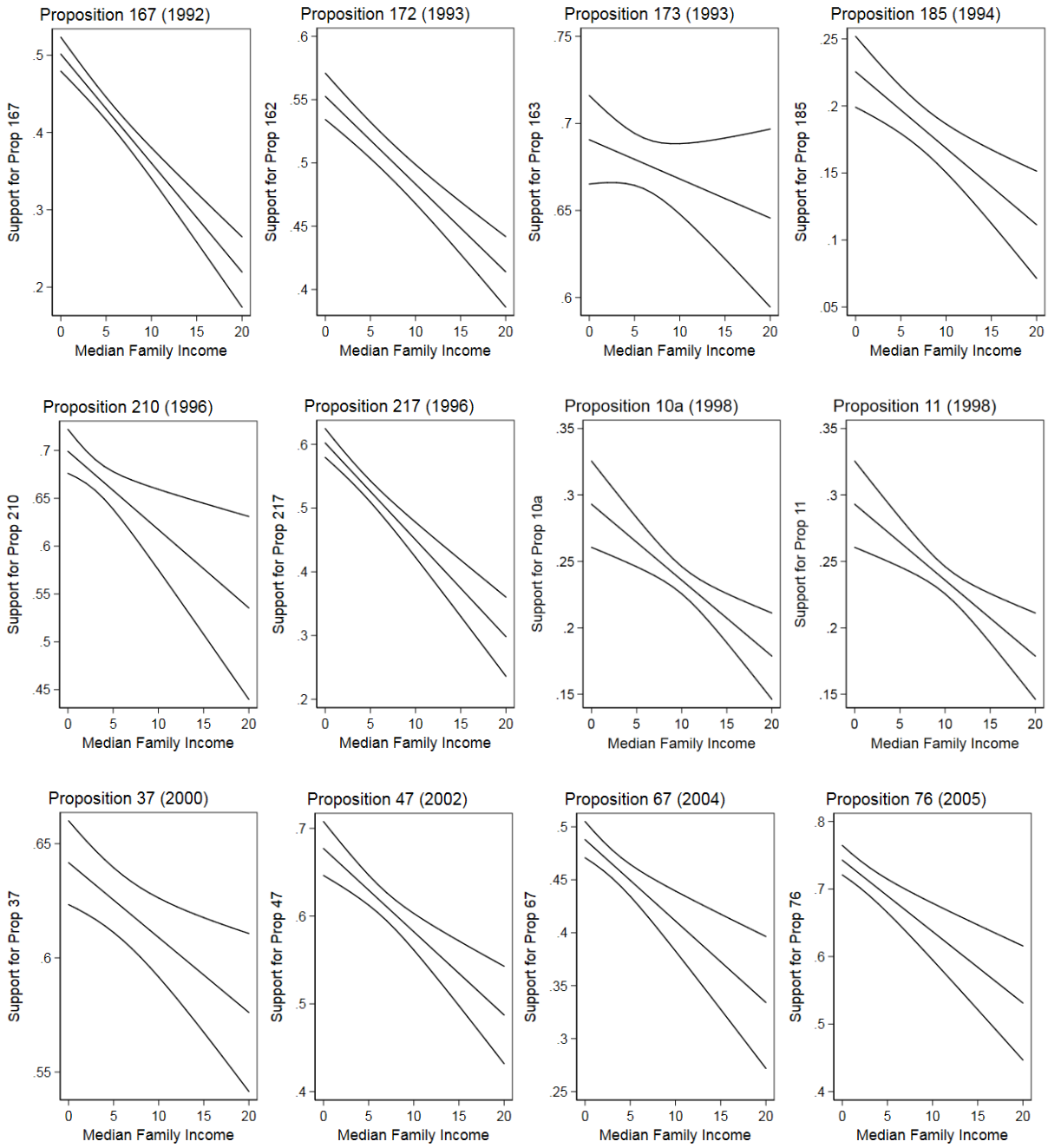
	2004	2005	2006	2008	
	Prop 67	Prop 76	Prop 87	Prop 3	Prop 10
Median family (in $10,000)	-0.079***	-0.104***	-0.098***	-0.029*	-0.067***
	(0.019)	(0.023)	(0.018)	(0.017)	(0.013)
Income Inequality	0.068**	0.061	0.103***	0.016	-0.063***
	(0.029)	(0.037)	(0.027)	(0.023)	(0.020)
% College graduates	0.002***	0.002***	0.004***	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Female	-0.172***	-0.041	-0.167**	0.120***	-0.026
	(0.056)	(0.075)	(0.065)	(0.043)	(0.047)
% African American	0.001**	0.003***	0.001	0.002***	0.001**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
% Latino\a	0.001***	0.003***	0.002***	0.003***	0.003***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Other	0.012***	0.016***	0.008**	0.006***	0.003*
	(0.003)	(0.004)	(0.004)	(0.002)	(0.002)
% Democratic Vote Share	0.212***	0.279***	0.277***	0.140***	0.037
	(0.036)	(0.043)	(0.042)	(0.022)	(0.029)
Ethnic Fractionalization	0.008	0.031	-0.016	-0.064***	-0.072***
	(0.030)	(0.039)	(0.030)	(0.018)	(0.016)
Constant	0.344***	0.402***	0.294***	0.333***	0.398***

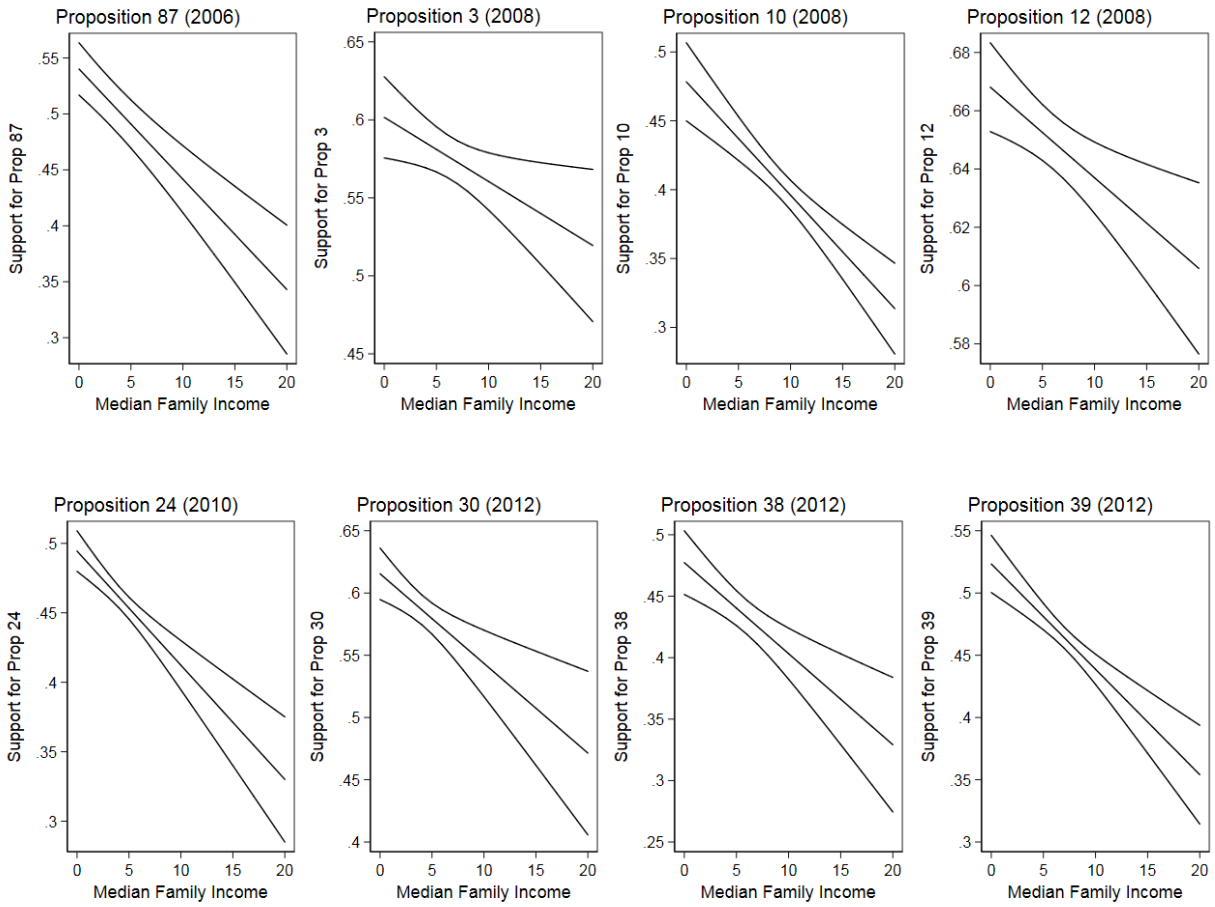
	(0.040)	(0.041)	(0.053)	(0.029)	(0.032)
Observations	22,380	22,364	22,380	22,391	22,391
R-squared	0.478	0.548	0.496	0.646	0.557

	2008	2010		2012	
	Prop 12	Prop 24	Prop 30	Prop 38	Prop 39
Median family Income	-0.033***	-0.080***	-0.067***	-0.071***	-0.087***
(in $10,000)	(0.010)	(0.016)	(0.023)	(0.021)	(0.014)
Income Inequality	0.030*	0.011	0.039	0.074**	0.084***
	(0.017)	(0.019)	(0.027)	(0.033)	(0.020)
% College graduates	-0.000	0.002***	0.002***	0.003***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Female	0.038	-0.011	-0.033	-0.115*	-0.562***
	(0.039)	(0.049)	(0.057)	(0.068)	(0.080)
% African American	0.002***	0.002***	0.002***	-0.001	-0.000
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)
% Latino\a	0.001***	0.001***	0.001***	0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Other	0.002	0.007***	0.012***	0.012***	0.010***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
% Democratic Vote Share	0.053***	0.251***	0.265***	0.241***	0.165***
	(0.011)	(0.029)	(0.029)	(0.027)	(0.026)
Ethnic Fractionalization	-0.006	-0.032	-0.013	0.016	-0.006
	(0.015)	(0.019)	(0.022)	(0.022)	(0.016)
Constant	0.583***	0.305***	0.379***	0.279***	0.625***
	(0.019)	(0.034)	(0.037)	(0.044)	(0.044)
Observations	22,391	22,411	22,411	22,411	22,411
R-squared	0.455	0.613	0.542	0.485	0.414

APPENDIX B

EXPECTED EFFECTS OF INCOME INEQUALITY ON SUPPORT FOR LIBERAL ECONOMIC POLICY (SPECIFIC PROPOSITIONS)


Proposition 167 (1992)
Support for Prop 167
.2
.3
.4
.5
0 5 10 15 20
Median Family Income
Proposition 172 (1993)
Support for Prop 162
.4
.45
.5
.55
.6
0 5 10 15 20
Median Family Income
Proposition 173 (1993)
Support for Prop 163
.6
.65
.7
.75
0 5 10 15 20
Median Family Income
Proposition 185 (1994)
Support for Prop 185
.05
.1
.15
.2
.25
0 5 10 15 20
Median Family Income
Proposition 210 (1996)
Support for Prop 210
.45
.5
.55
.6
.65
.7
0 5 10 15 20
Median Family Income
Proposition 217 (1996)
Support for Prop 217
.2
.3
.4
.5
.6
0 5 10 15 20
Median Family Income
Proposition 10a (1998)
Support for Prop 10a
.15
.2
.25
.3
.35
0 5 10 15 20
Median Family Income
Proposition 11 (1998)
Support for Prop 11
.15
.2
.25
.3
.35
0 5 10 15 20
Median Family Income
Proposition 37 (2000)
Support for Prop 37
.55
.6
.65
0 5 10 15 20
Median Family Income
Proposition 47 (2002)
Support for Prop 47
.4
.5
.6
.7
0 5 10 15 20
Median Family Income
Proposition 67 (2004)
Support for Prop 67
.25
.3
.35
.4
.45
.5
0 5 10 15 20
Median Family Income
Proposition 76 (2005)
Support for Prop 76
.4
.5
.6
.7
.8
0 5 10 15 20
Median Family Income


Proposition 87 (2006)
Support for Prop 87
.55
.5
.45
.4
.35
.3
0 5 10 15 20
Median Family Income
Proposition 3 (2008)
Support for Prop 3
.65
.6
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.5
.45
0 5 10 15 20
Median Family Income
Proposition 10 (2008)
Support for Prop 10
.5
.45
.4
.35
.3
0 5 10 15 20
Median Family Income
Proposition 12 (2008)
Support for Prop 12
.68
.66
.64
.62
.6
.58
0 5 10 15 20
Median Family Income
Proposition 24 (2010)
Support for Prop 24
.5
.45
.4
.35
.3
0 5 10 15 20
Median Family Income
Proposition 30 (2012)
Support for Prop 30
.65
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.4
0 5 10 15 20
Median Family Income
Proposition 38 (2012)
Support for Prop 38
.5
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.35
.3
.25
0 5 10 15 20
Median Family Income
Proposition 39 (2012)
Support for Prop 39
.55
.5
.45
.4
.35
.3
0 5 10 15 20
Median Family Income

APPENDIX C

THE EFFECTS OF INCOME INEQUALITY ON PREFERENCE DISTRIBUTIONS

(SPECIFIC PROPOSITIONS)

	1992	1993		1994	1996
	Prop 167	Prop 172	Prop 173	Prop 185	Prop 210
Income Inequality	-0.924***	-0.570***	-0.570***	-0.332**	-0.658***
	(0.156)	(0.105)	(0.105)	(0.164)	(0.122)
Income Inequality^2	1.239***	0.812***	0.812***	0.282	0.634***
	(0.252)	(0.133)	(0.133)	(0.209)	(0.206)
Median Family Income	0.000***	-0.000	-0.000	0.000*	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% College graduates	-0.001	0.001**	0.001**	0.005***	-0.002***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.001)
% Female	0.000	-0.001	-0.001	0.001***	0.000
	(0.002)	(0.001)	(0.001)	(0.000)	(0.001)
% African American	-0.001	-0.001	-0.001	-0.003***	-0.002***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
% Latino\a	-0.000	-0.000	-0.000	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Other	-0.001*	-0.001**	-0.001**	-0.001***	-0.002***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.001)
% Democratic Vote Share	0.016	0.163***	0.163***	0.053**	-0.051
	(0.048)	(0.033)	(0.033)	(0.022)	(0.034)
Ethnic Fractionalization	0.009	-0.059***	-0.059***	-0.060***	-0.018
	(0.031)	(0.018)	(0.018)	(0.014)	(0.034)
Constant	0.335***	0.254***	0.254***	0.330***	0.499***
	(0.100)	(0.060)	(0.060)	(0.034)	(0.080)
Observations	20,741	20,737	20,737	21,198	20,918
R-squared	0.146	0.187	0.187	0.684	0.215

Dependent Variable: Absolute difference in support and Opposition to Specific Proposition. *p>.05; **p>.01; ***p>.001

	1996	1998		2000	2002
	Prop 217	Prop 10a	Prop 11	Prop 37	Prop 47
Income Inequality	-0.921***	-0.705***	-0.588***	-0.220	-0.588***
	(0.112)	(0.140)	(0.175)	(0.137)	(0.136)
Income Inequality^2	1.363***	1.345***	1.284***	0.397**	0.954***
	(0.133)	(0.178)	(0.288)	(0.163)	(0.178)
Median Family Income	0.000**	-0.000***	0.000	0.000***	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% College graduates	0.001	0.001	0.003***	0.001**	0.003***
	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)
% Female	-0.002**	-0.002***	-0.001**	-0.189***	-0.341***

	(0.001)	(0.001)	(0.001)	(0.064)	(0.079)
% African American	-0.001	-0.002***	0.002**	0.003***	0.004***
	(0.001)	(0.000)	(0.001)	(0.000)	(0.001)
% Latino\a	-0.001***	-0.001***	0.000	-0.000**	0.003***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Other	-0.001***	-0.001	-0.001*	-0.001***	0.003***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)
% Democratic Vote Share	0.385***	0.088***	0.118**	-0.010	0.377***
	(0.033)	(0.028)	(0.048)	(0.018)	(0.088)
Ethnic Fractionalization	-0.072*	0.057	0.022	0.100***	0.299***
	(0.036)	(0.036)	(0.019)	(0.020)	(0.042)
Constant	0.321***	0.356***	0.114***	0.137***	0.086
	(0.053)	(0.075)	(0.042)	(0.039)	(0.053)
Observations	20,917	21,227	21,225	16,437	22,197
R-squared	0.431	0.121	0.296	0.269	0.606

Dependent Variable: Absolute difference in support and Opposition to Specific Proposition. *p>.05; **p>.01; ***p>.001

	2004	2005	2006	2008	
	Prop 67	Prop 76	Prop 87	Prop 3	Prop 10b
Income Inequality	-0.557***	-0.622***	-0.715***	-0.238*	-0.415**
	(0.121)	(0.195)	(0.199)	(0.123)	(0.157)
Income Inequality^2	0.629***	0.827***	0.969***	0.329*	0.652***
	(0.159)	(0.259)	(0.257)	(0.167)	(0.196)
Median Family Income	0.000***	0.000*	-0.000*	-0.000	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% College graduates	-0.001***	-0.001	-0.001*	-0.000	-0.000
	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)
% Female	0.104	-0.231**	-0.430***	-0.073	-0.508***
	(0.089)	(0.096)	(0.118)	(0.063)	(0.103)
% African American	-0.000	0.002	-0.004***	0.003*	-0.002***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)
% Latino\a	-0.002***	-0.002***	-0.003***	0.003***	-0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Other	-0.002***	-0.002***	-0.004***	0.002***	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)
% Democratic Vote Share	-0.130***	0.304***	0.301***	0.247***	0.415***
	(0.022)	(0.056)	(0.038)	(0.055)	(0.044)
Ethnic Fractionalization	0.001	-0.080	-0.168***	0.237***	0.026
	(0.035)	(0.052)	(0.051)	(0.074)	(0.051)

Constant	0.417***	0.475***	0.819***	-0.019	0.479***
	(0.047)	(0.075)	(0.048)	(0.072)	(0.082)
Observations	22,395	22,395	22,395	22,394	22,394
R-squared	0.286	0.295	0.275	0.635	0.473

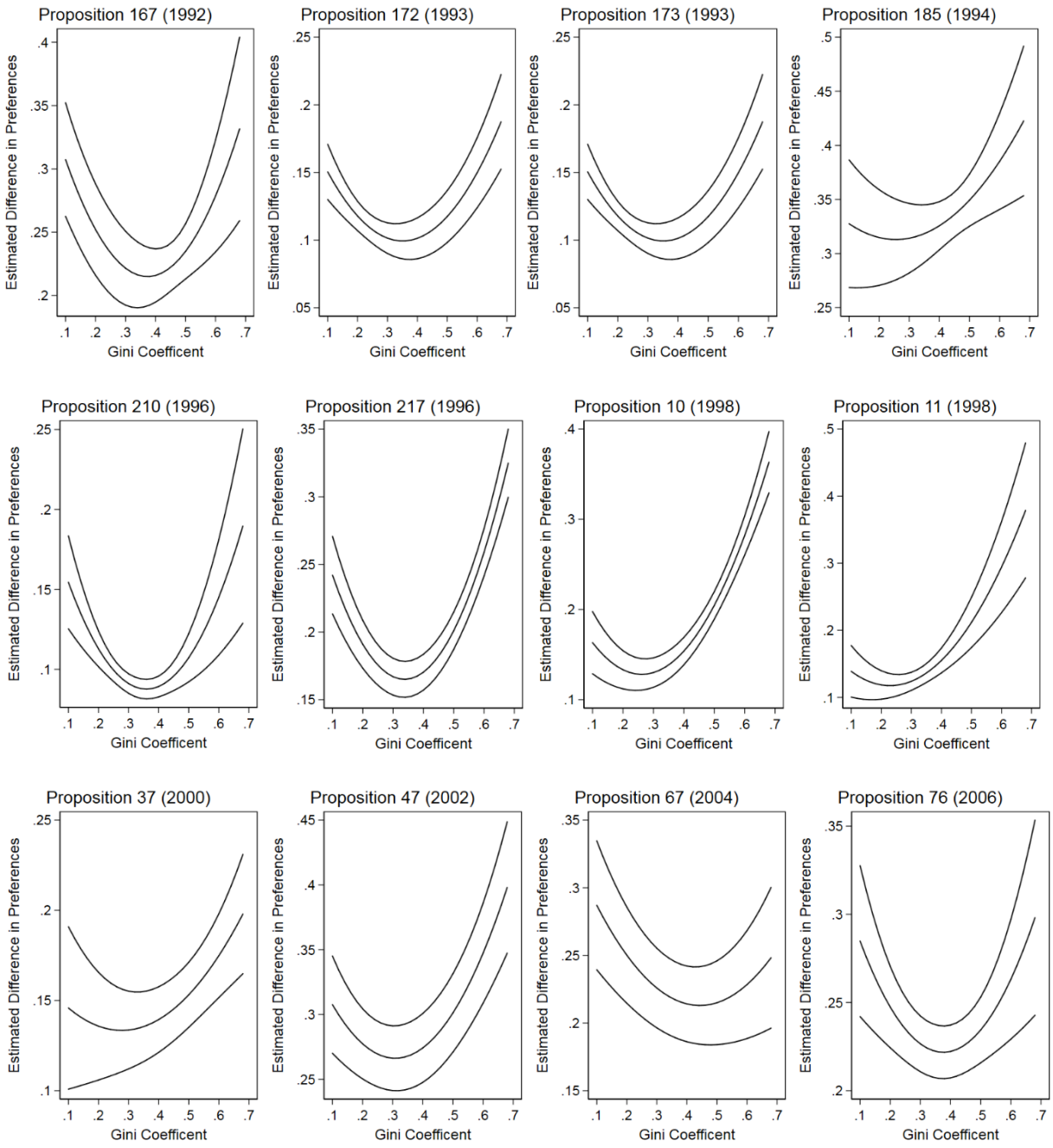
Dependent Variable: Absolute difference in support and Opposition to Specific Proposition. *p>.05; **p>.01; ***p>.001

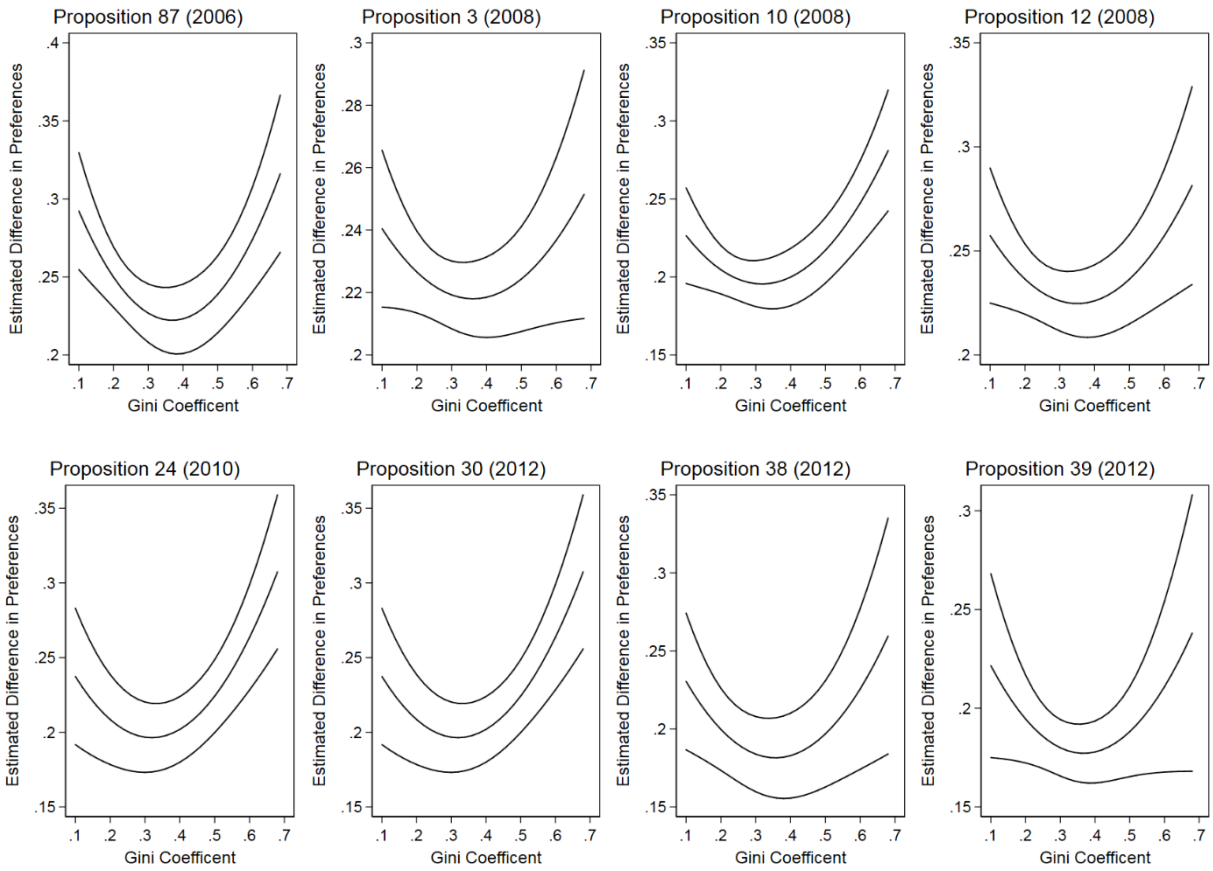
	2008	2010		2012	
	Prop 12	Prop 24	Prop 30	Prop 38	Prop 39
Income Inequality	-0.365**	-0.544***	-0.544***	-0.531**	-0.457*
	(0.162)	(0.164)	(0.164)	(0.210)	(0.228)
Income Inequality^2	0.522**	0.853***	0.853***	0.745**	0.622*
	(0.211)	(0.215)	(0.215)	(0.294)	(0.314)
Median Family Income	0.000***	0.000***	0.000***	0.000	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% College graduates	-0.002***	-0.001***	-0.001***	0.000	0.001
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
% Female	0.013	-0.120	-0.120	-0.202**	-0.374***
	(0.147)	(0.097)	(0.097)	(0.094)	(0.133)
% African American	0.000	0.001	0.001	-0.004***	-0.002***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)
% Latino\a	-0.002***	-0.002***	-0.002***	-0.002***	-0.001**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Other	-0.001*	-0.003***	-0.003***	-0.003***	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
% Democratic Vote Share	-0.079	-0.042	-0.042	0.265***	0.121***
	(0.059)	(0.048)	(0.048)	(0.044)	(0.035)
Ethnic Fractionalization	-0.013	0.010	0.010	-0.156**	0.001
	(0.059)	(0.045)	(0.045)	(0.059)	(0.031)
Constant	0.394***	0.450***	0.450***	0.498***	0.463***
	(0.108)	(0.070)	(0.070)	(0.053)	(0.063)
Observations	22,394	22,411	22,411	22,411	22,411
R-squared	0.188	0.223	0.223	0.254	0.097

Dependent Variable: Absolute difference in support and Opposition to Specific Proposition. *p>.05; **p>.01; ***p>.001

APPENDIX D

EXPECTED EFFECTS OF INCOME INEQUALITY ON PREFERENCE DISTRIBUTIONS (SPECIFIC PROPOSITIONS)


Proposition 167 (1992)
Proposition 172 (1993)
Proposition 173 (1993)
Proposition 185 (1994)
Proposition 210 (1996)
Proposition 217 (1996)
Proposition 10 (1998)
Proposition 11 (1998)
Proposition 37 (2000)
Proposition 47 (2002)
Proposition 67 (2004)
Proposition 76 (2006)
Estimated Difference in Preferences
Gini Coefficent


Proposition 87 (2006)
Proposition 3 (2008)
Proposition 10 (2008)
Proposition 12 (2008)
Proposition 24 (2010)
Proposition 30 (2012)
Proposition 38 (2012)
Proposition 39 (2012)
Estimated Difference in Preferences
Gini Coefficent

APPENDIX E

OLS ANALYSIS OF EFFECTS OF INCOME INEQUALITY ON POLITICAL PARTICIPATION

	1992 General	1994 General	1996 General	1998 General	1998 Primary	2000 General	2000 Primary	2002 General	2003 Special	2004 General
Gini Coefficient	.495***	.463***	.564***	.594***	.545***	.879***	.250***	.921***	.993***	.965***
	(.112)	(.122)	(.179)	(.173)	(.082)	(.172)	(.082)	(.116)	(.117)	(.099)
Gini Coefficient^2	-.822***	-.783***	-.881***	-.898***	-.757***	-1.062***	-.485***	-1.115***	-1.341***	-1.289***
	(.145)	(.184)	(.222)	(.222)	(.101)	(.181)	(.088)	(.124)	(.137)	(.121)
Median Family Income	.000**	.000***	.000**	.000*	.000*	.000***	.000*	.000***	.000***	.000***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
% College graduates	.001	.000	.000	.000	.000	-.001***	-.001	-.001**	.000**	.000*
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
% Female	.002**	.002**	.001	.001	.001*	.206**	.002*	.351***	.385***	.400***
	(.001)	(.001)	(.001)	(.001)	(.001)	(.088)	(.001)	(.086)	(.060)	(.070)
% African American	-.001	-.001**	-.001	-.001*	-.001*	-.003***	-.002***	-.003**	-.003***	-.002***
	(.001)	(.001)	(.001)	(.000)	(.000)	(.001)	(.001)	(.001)	(.000)	(.001)
% Latino\a	-.001***	-.001***	-.001*	-.001***	-.001**	-.004***	-.002***	-.002***	-.003***	-.002***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
% Other Race/Ethnicity	-.001***	-.001***	-.001**	-.001***	.000	-.002***	-.002***	-.002***	-.003***	-.002***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Political Competitiveness	-.023	-.027	-.013	-.003	.006	.020	-.024	-.025	.020	.063
	(.028)	(.026)	(.023)	(.024)	(.021)	(.029)	(.024)	(.038)	(.020)	(.019)
Ethnic Fractionalization	-.055***	.045*	.036	.073**	.081***	.061***	.077*	.105***	-.008	-.008
	(.016)	(.017)	(.023)	(.023)	(.022)	(.018)	(.031)	(.029)	(.026)	(.019)
Constant	.502***	.289***	.365***	.299***	.120***	.162**	.389***	.141**	.270***	.366***
	(.060)	(.055)	(.059)	(.046)	(.028)	(.066)	(.053)	(.060)	(.047)	(.049)
N	21,215	21,215	21,215	21,215	21,215	21,215	21,215	22,407	22,407	22,407
Prob>F	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
R-sqrd	.369	.390	.300	.285	.192	.549	.351	.435	.545	.520

	2004 Primary	2005 Special	2006 General	2006 Primary	2008 General	2008 Primary	2008 Special	2010 General	2010 Primary	2012 General
Gini Coefficient	.889***	1.101***	.935***	.822***	.740***	.697***	.975***	.955***	.879***	.733***
	(.144)	(.141)	(.126)	(.157)	(.141)	(.146)	(.114)	(.109)	(.172)	(.087)
Gini Coefficient^2	-1.056***	-1.394***	-1.159***	-.963***	-1.034***	-.811***	-1.258***	-1.227***	-1.062***	-.978***
	(.150)	(.150)	(.133)	(.169)	(.169)	(.155)	(.120)	(.107)	(.181)	(.089)
Median Family Income	.000***	.000***	.000***	.000***	.000***	.000	.000***	.000***	.000***	.000***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
% College graduates	.000*	-.001	.000*	-.001*	.000	-.001	.000	-.001**	-.001***	.000*
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
% Female	.335***	.411***	.339***	.334***	.180***	.105	.357***	.191**	.206*	.000
	(.070)	(.075)	(.075)	(.069)	(.041)	(.079)	(.064)	(.062)	(.088)	(.001)
% African American	-.003***	-.002***	-.003***	-.002***	-.002***	-.002*	-.002***	-.003***	-.003***	-.002***
	(.001)	(.000)	(.000)	(.000)	(.001)	(.001)	(.000)	(.001)	(.001)	(.000)
% Latino\a	-.003***	-.002***	-.003***	-.003***	-.002***	-.003***	-.002***	-.004***	-.004***	-.002***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
% Other Race/Ethnicity	-.003***	-.002***	-.002***	-.002***	-.002***	-.002***	-.002***	-.003***	-.002***	-.002***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Political Competitiveness	.028	.088***	.088***	.069*	.056	.055	.108***	.040	.020	.033
	(.023)	(.020)	(.020)	(.028)	(.031)	(.032)	(.023)	(.028)	(.029)	(.015)
Ethnic Fractionalization	.020	.054*	.034*	.090***	-.076***	.084***	.002	.018	.061***	.022
	(.018)	(.024)	(.017)	(.022)	(.013)	(.019)	(.023)	(.018)	(.018)	(.011)
Constant	.175***	.085*	.248***	.041	.620***	.175***	.210***	.388***	.162*	.417***
	(.050)	(.044)	(.044)	(.054)	(.021)	(.055)	(.034)	(.032)	(.066)	(.025)
N	22,401	22,401	22,401	22,401	22,401	22,401	22,401	22,401	22,401	23,116
Prob>F	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
R-sqrd	.569	.448	.577	.379	.506	.422	.503	.655	.655	.549

Dependent Variable: Percentage of registered voters who cast a vote. *p>.05; **p>.01; ***p>.001

APPENDIX F

ANALYSIS OF EFFECTS OF INCOME INEQUALITY ON POLITICAL PARTICIPATION

(ERROR MODEL)

	1992 General	1994 General	1996 General	1998 General	1998 Primary	2000 General	2000 Primary	2002 General	2003 Special	2004 General
Gini Coefficient	.833***	.717***	.921***	.318***	1.020***	.830***	1.019***	1.055***	1.307***	1.135***
	(.105)	(.109)	(.110)	(.117)	(.102)	(.100)	(.118)	(.127)	(.121)	(.104)
Gini Coefficient²	-1.450***	-1.214***	-1.472***	-.869***	-1.408***	-1.400***	-1.466***	-1.291***	-1.784***	-1.511***
	(.143)	(.148)	(.150)	(.159)	(.137)	(.136)	(.161)	(.173)	(.166)	(.143)
Median Family Income	.000	.000***	.000***	.000***	.000***	.000***	.000***	.000***	.000***	.000***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
% College graduates	.001***	.000	.000***	.000	.000***	.000	-.001***	-.001***	.000***	.000***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
% Female	.002***	.001***	.001**	.000*	.000	.001***	.001***	.338***	.368***	.265***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.020)	(.020)	(.017)
% African American	-.001***	-.002***	-.001***	-.001***	-.001***	-.002***	-.002***	-.002***	-.003***	-.002***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
% Latino\a	-.001***	-.001***	-.001***	-.001***	-.001***	-.002***	-.002***	-.002***	-.003***	-.002***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
% Other Race/Ethnicity	-.001***	-.001***	-.001***	-.001***	-.001***	-.001***	-.002***	-.002***	-.003***	-.002***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Political Competitiveness	-.041***	-.037***	-.025***	.033***	-.001	.023***	.008	-.031***	-.004	.007
	(.005)	(.005)	(.005)	(.006)	(.007)	(.005)	(.005)	(.005)	(.005)	(.005)
Ethnic Fractionalization	-.068***	.023***	.023***	.026***	.055***	.045***	.034***	.075***	-.035***	.000
	(.006)	(.007)	(.007)	(.008)	(.007)	(.006)	(.0058)	(.008)	(.008)	(.007)
Constant	.502***	.337***	.391***	.195***	.127***	.511***	.270***	.113***	.250***	.371***
	(.021)	(.021)	(.022)	(.023)	(.020)	(.020)	(.023)	(.025)	(.024)	(.021)
N	21,215	21,215	21,215	21,215	21,215	21,215	21,215	22,407	22,407	22,407
Prob>chi²	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Rho	1.995	2.157	2.457	3.262	2.314	3.107	3.024	3.291	3.634	2.940
Sigma²	.003	.004	.004	.004	.003	.003	.004	.006	.005	.004

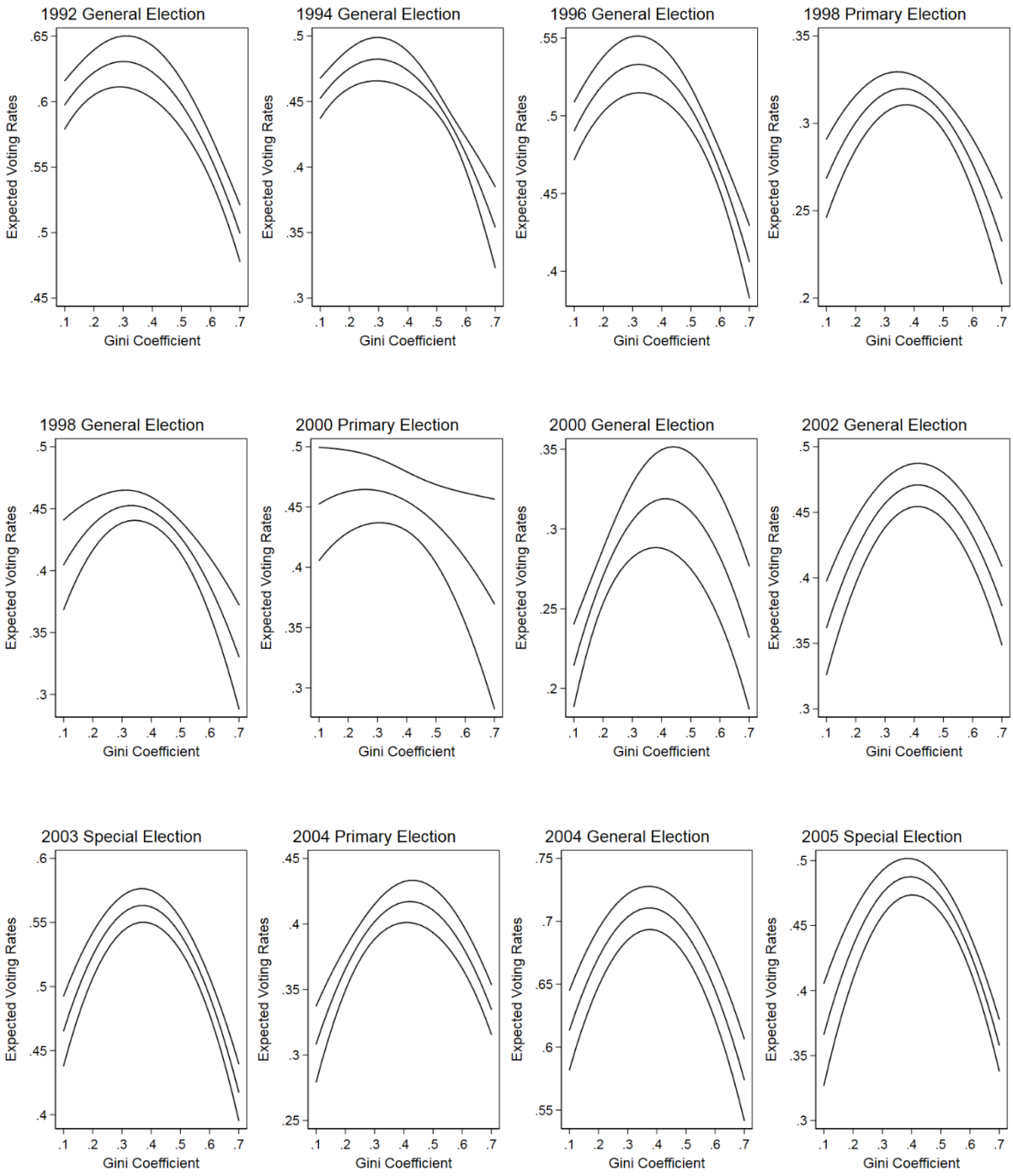
	2004 Primary	2005 Special	2006 General	2006 Primary	2008 General	2008 Primary	2008 Special	2010 General	2010 Primary	2012 General
Gini Coefficient	1.359***	1.812***	1.269***	1.253***	0.829***	1.324***	1.580***	1.347***	1.388***	1.368***
	(.1166)	(.112)	(.109)	(.114)	(.109)	(.106)	(.106)	(.101)	(.108)	(.109)
Gini Coefficient²	-1.617***	-2.325***	-1.603***	-1.503***	-1.111***	-1.556***	-2.068***	-1.697***	-1.664***	-1.680***
	(.158)	(.153)	(.148)	(.156)	(.148)	(.145)	(.145)	(.138)	(.147)	(.141)
Median Family Income	.000***	.000***	.000***	.000***	.000***	.000***	.000***	.000***	.000***	.000***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
% College graduates	.000***	-.001***	.000	-.001***	.000*	.000***	.000*	.000***	-.001***	.000***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
% Female	.264***	.266***	.268***	.241***	.254***	.134***	.223***	.247***	.140***	.194***
	(.019)	(.018)	(.018)	(.019)	(.018)	(.017)	(.017)	(.017)	(.018)	(.018)
% African American	-.002***	-.002***	-.003***	-.002***	-.002***	.000***	-.001***	-.002***	-.002***	-.002***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
% Latino\a	-.003***	-.002***	-.003***	-.002***	-.002***	-.002***	-.002***	-.003***	-.003***	-.003***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
% Other Race/Ethnicity	-.002***	-.002***	-.002***	-.002***	-.002***	-.001***	-.002***	-.003***	-.002***	-.002***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Political Competitiveness	-.002	.030***	.024***	.005	.035***	-.018***	.043***	-.012*	-.042***	-.027***
	(.006)	(.005)	(.005)	(.005)	(.007)	(.005)	(.005)	(.005)	(.005)	(.005)
Ethnic Fractionalization	.012	.030***	.031***	.087***	-.095***	.112***	.006	.032***	.080***	.056***
	(.007)	(.007)	(.007)	(.007)	(.008)	(.006)	(.006)	(.006)	(.006)	(.006)
Constant	.082***	.031	.193***	-.017	.533***	-.039	.152***	.219***	.026	.122***
	(.023)	(.022)	(.022)	(.023)	(.021)	(.021)	(.021)	(.020)	(.022)	(.021)
N	22,401	22,401	22,401	22,401	22,401	22,401	22,401	22,401	22,401	23,116
Prob>chi²	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Rho	2.231	2.163	1.908	1.886	2.229	1.457	1.757	1.449	1.412	.1444
Sigma²	.005	.005	.004	.005	.004	.004	.004	.004	.004	.004

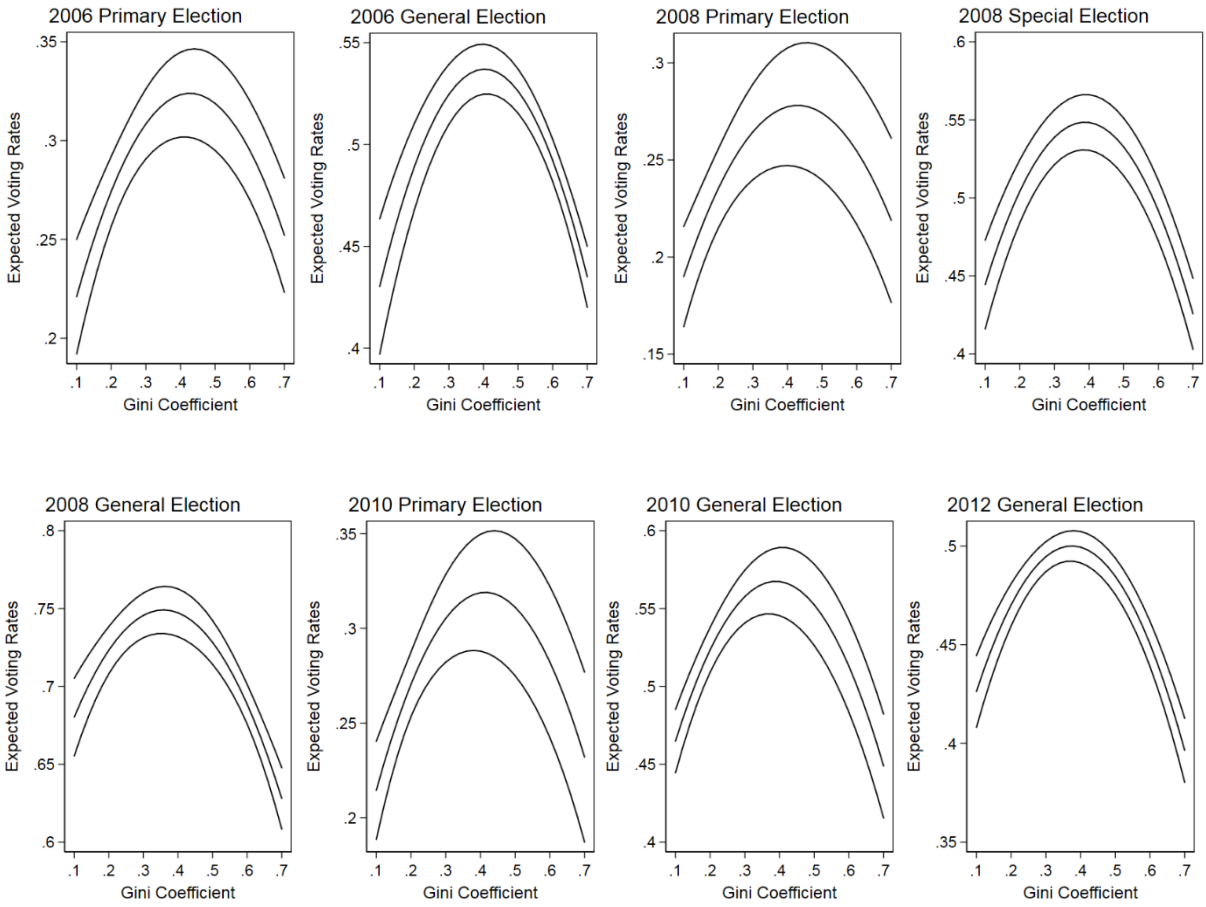
Dependent Variable: Percentage of registered voters who cast a vote. *p>.05; **p>.01; ***p>.001

APPENDIX G

EFFECTS OF INCREASING INCOME INEQUALITY ON POLITICAL PARTICIPATION

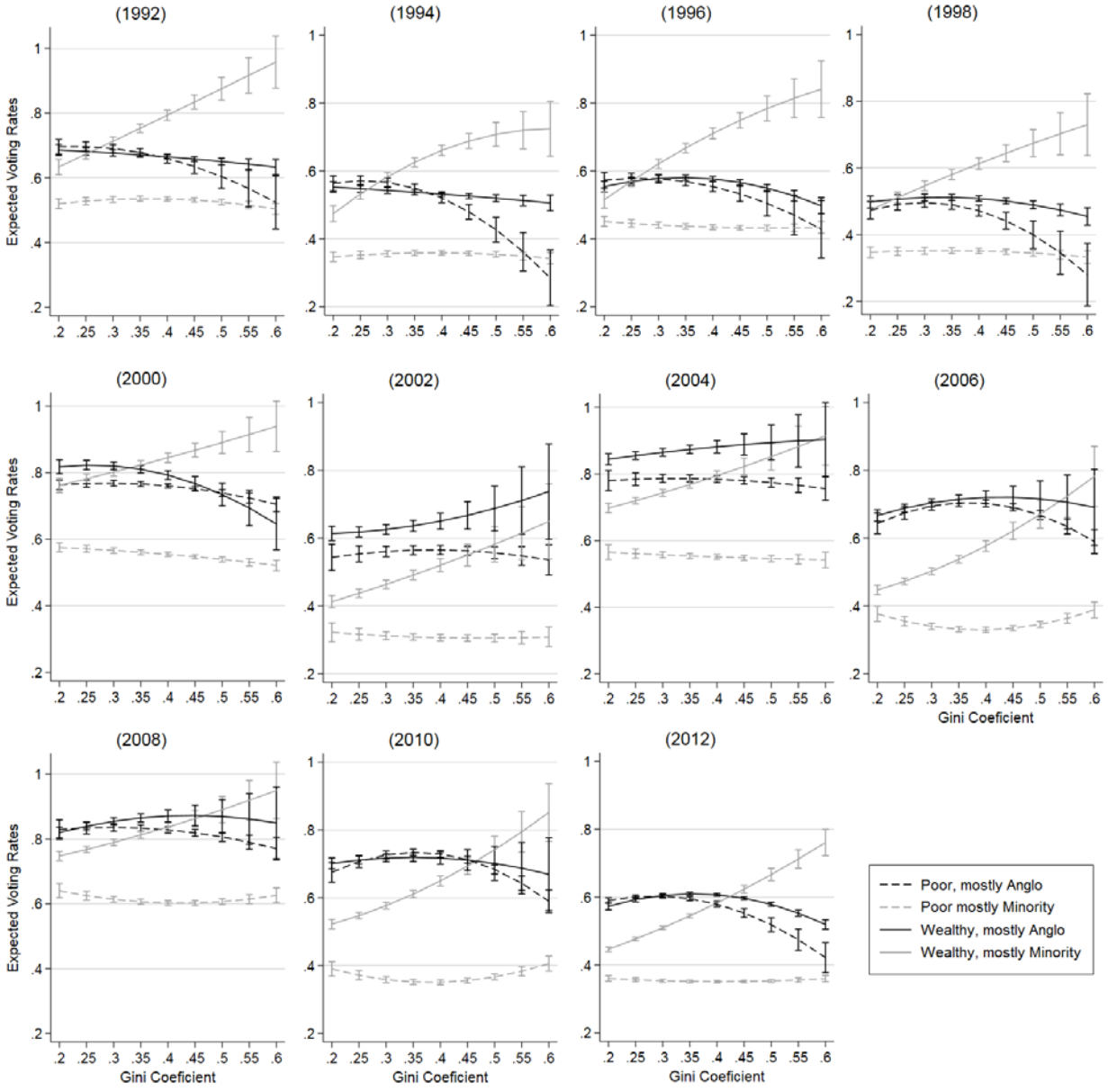
(ALL ELECTIONS 1992-2012)


1992 General Election
1994 General Election
1996 General Election
1998 Primary Election
1998 General Election
2000 Primary Election
2000 General Election
2002 General Election
2003 Special Election
2004 Primary Election
2004 General Election
2005 Special Election
Expected Voting Rates
Gini Coefficient


2006 Primary Election
2006 General Election
2008 Primary Election
2008 Special Election
2008 General Election
2010 Primary Election
2010 General Election
2012 General Election
Expected Voting Rates
Gini Coefficient

APPENDIX H

EFFECTS OF ECONOMIC INEQUALITY, INCOME, AND RACE/ETHNICITY ON VOTING RATES (SELECTED YEARS)


(1992)
(1994)
(1996)
(1998)
(2000)
(2002)
(2004)
(2006)
(2008)
(2010)
(2012)
Expected Voting Rates
Gini Coeficient
Poor, mostly Anglo
Poor mostly Minority
Wealthy, mostly Anglo
Wealthy, mostly Minority

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